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# *Eighteenth Edition* Seed Trade Buyers Guide & Directory

published by  
**SEED WORLD**  
CHICAGO

1935

F. H. WOODRUFF & SONS

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Advertisers Index—Page 180

# Seed Trade Buyer's Guide

Registered U. S. Patent Office

## For 1935

Compiled and Published to Promote Better Business for  
Seed Merchants Everywhere.

Containing Classified Listings of Seed Growers, Wholesalers,  
Manufacturers of Equipment, Supplies and  
Side-Line Merchandise.

Containing an Alphabetical List of Trade Marks and Slogans  
Used by Seedsmen and Manufacturers of Allied Lines

Containing Summary of State Seed Laws, Tables of Seed  
Exports and Imports, Tariff Rates, Planting and Spray-  
ing Tables, Information on Sidelines and Other  
Data of Interest to the Seed Trade. For  
Index Refer to Page 4.

It has been the endeavor of the publishers to limit the listings  
to actual growers, wholesalers or manufacturers who  
are generally recognized in the trade as being  
privileged to such classification. For index  
refer to page 4.

The publication of this book is made possible through the  
support of the advertisers whose names appear in  
bold face type in the directory section.

(Advertisers' Index page 180)

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PUBLISHED BY

325 West Huron St.

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# Wholesale Field Seeds

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and  
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*Sellers*

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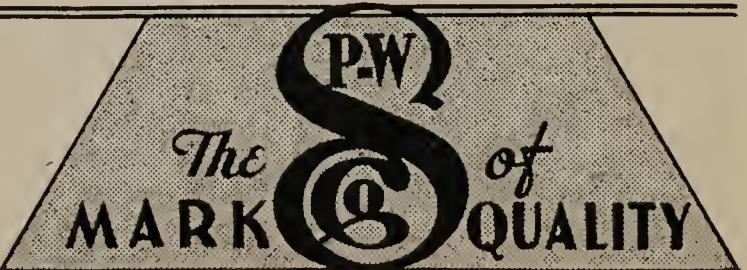
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CARROT  
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## Summary of Requirements in Various State Seed Laws for the Labeling of Garden and Field Seeds

This Summary prepared by Macy Spracher, Seed Analyst, Northrup, King & Co., Minneapolis, Minn.)  
(Detailed field seed labeling requirements on page 14.)

## *SEED TRADE BUYERS GUIDE*

| State          | Vegetable Seeds   | Special Requirements or Regulations for Both Field and Garden Seeds  | Flower Seeds | License or Tax    | Test Fee for Out-of-State Individuals |                                  | Address—Laboratory  |
|----------------|---|--|--------------|-------------------|---------------------------------------|----------------------------------|---|
|                |   |  |              |                   | Fee                                   | 50c                              |   |
| Alabama        | 5 Lb.—Tag same as field seeds. No small packet regulations. | Send copy of invoice of each sale to Dept. of Agriculture.<br>Hard seeds not to be included in % germ. Give bushel weight on tag. Germination not over 20% below their standard.                                     | No           | None              | Pur. 25c plus Germ. 25c               | Pur. \$1-\$5.00 Germ. 50c-\$1.00 | Seed Lab., Dept. of Agriculture, Montgomery, Ala.                 |
| Arkansas       | Does not apply.   |  | No           | None              | Pur. 25c plus Germ. 25c               | Pur. \$1-\$5.00 Germ. 50c-\$1.00 | Com. of Mines, Manufacture & Agriculture, Little Rock, Ark.       |
| Arizona        | Does not apply.   | Field peas and beans as agriculture seeds. Flower, sugar beet and garden and vegetable seeds excluded.   | No           | None              | Pur. 25c plus Germ. 25c               | Pur. \$1-\$5.00 Germ. 50c-\$1.00 | University of Arizona, College of Agriculture, Tucson, Ariz.      |
| California     |   | Hard seeds must not be included in % germination.<br>7 point type minimum on label.<br>Tolerance germination 10%; Purity 2%.   | No           | None              | Pur. 25c plus Germ. 25c               | Pur. \$1-\$5.00 Germ. 50c-\$1.00 | Federal State Laboratory, State Office Bldg., Sacramento, Calif.  |
| Colorado       |   | Hard seeds not to be included in % germination.<br>Must be tagged—name of seed, seller and where grown.  | No           | None              | Pur. 25c plus Germ. 25c               | Pur. \$1-\$5.00 Germ. 50c-\$1.00 | Colorado Seed Laboratory, Fort Collins, Colo.                     |
| Connecticut    |   | Does not apply.  | No           | None              | Pur. 25c plus Germ. 25c               | Pur. \$1-\$5.00 Germ. 50c-\$1.00 | Com. of Agriculture, % Com. Agri. Expt. Station, New Haven, Conn. |
| Delaware       |   | Canning house pea.   | No           | None              | Pur. 25c plus Germ. 25c               | Pur. \$1-\$5.00 Germ. 50c-\$1.00 | State Seed Laboratory, Dover, Del.                                |
| Florida        |   | No seed law.<br>No seed law.<br>Does not apply.  | No           | None              | Pur. 25c plus Germ. 25c               | Pur. \$1-\$5.00 Germ. 50c-\$1.00 | Pur. 25c, Germ. 25c   |
| Iowa           | 1 lb.—as field seeds.                                       | Hard seeds not to be included in % germination.<br>Hard seed must not be included in % germination.<br>Label not less than 8 point heavy gothic caps.<br>Quantity in weight measure or count. Small packages exempt. | No           | Buy Indiana tags  | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Idaho          | Does not apply.   | Hard seed must not be included in % germination.   | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Illinois       | Does not apply.   | Label not less than 8 point heavy gothic caps.<br>Quantity in weight measure or count. Small packages exempt.  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Kansas         | Does not apply.   | Hard seed must not be included in % germination.<br>Seed may be sold as "Untested (agricultural) Seed," provided no seed, except Kentucky and Canada bluegrass, has germination less than 50%.                       | No           | Buy Kentucky tags | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Louisiana      | 1 lb.—as field seeds.                                       | Agricultural seed defined as "cultivated plants." See field seeds.<br>Does not apply.  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Maine          |   | Does not apply.  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Maryland       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Kentucky       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Louisiana      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Tennessee      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Oklahoma       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Pennsylvania   |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Rhode Island   |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| South Carolina |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| West Virginia  |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Wyoming        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Alaska         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Arizona        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Arkansas       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| California     |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Colorado       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Connecticut    |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Delaware       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Florida        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Georgia        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Hawaii         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Idaho          |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Illinois       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Indiana        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Iowa           |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Kansas         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Louisiana      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Maine          |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Maryland       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Pennsylvania   |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Rhode Island   |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| South Carolina |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Tennessee      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Utah           |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Vermont        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Washington     |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Wisconsin      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Wyoming        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Alaska         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Arizona        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Arkansas       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| California     |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Colorado       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Connecticut    |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Delaware       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Florida        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Georgia        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Hawaii         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Idaho          |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Illinois       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Indiana        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Iowa           |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Kansas         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Louisiana      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Maine          |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Maryland       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Pennsylvania   |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Rhode Island   |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| South Carolina |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Tennessee      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Utah           |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Wisconsin      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Wyoming        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Alaska         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Arizona        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Arkansas       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| California     |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Colorado       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Connecticut    |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Delaware       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Florida        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Georgia        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Hawaii         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Idaho          |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Illinois       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Indiana        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Iowa           |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Kansas         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Louisiana      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Maine          |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Maryland       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Pennsylvania   |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Rhode Island   |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| South Carolina |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Tennessee      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Utah           |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Wisconsin      |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Wyoming        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Alaska         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Arizona        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Arkansas       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| California     |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Colorado       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Connecticut    |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Delaware       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Florida        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Georgia        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Hawaii         |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Idaho          |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Illinois       |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Indiana        |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |
| Iowa           |   |  | No           | None              | Pur. 50c-\$5.00, Germ. 50c            | Pur. \$3.00, Germ. \$1.00 Fee    | Pur. 25c, Germ. 25c   |

# field seeds



## Car Lot Shippers

SWEET  
CLOVER  
RED CLOVER  
ALFALFA  
SUDAN  
MILLET

FULL  
LINE  
of  
GARDEN  
SEEDS

CANE  
AND ALL  
OTHER  
FIELD  
SEEDS  
SWEET CORN

**THE NEBRASKA SEED CO.**  
OMAHA, NEBRASKA

## Summary of Requirements in Various State Seed Laws for the Labeling of Garden and Field Seeds—Continued

|                | Vegetable Seeds   | Special Requirements or Regulations for Both Field and Garden Seeds  | Flower Seeds  | License or Tax                                       | Test Fee for Out-of-State Individuals | Address—Laboratory  |
|----------------|---|--|---|--|---------------------------------------|---|
| Michigan       | Does not apply.   | Hard seeds must not be included in % germination.<br>Label in not smaller than 8 point gothic caps.<br>$\frac{1}{2}$ the % of hard seeds may be included in the % of germination.<br>"Grimm Alfalfa" in lots of 30 lbs. or more must be sealed by state where grown. | No<br>No  | None<br>None   | Pur. 25c-\$2.00,<br>Germ. 25c         | State Seed Laboratory, Dept. Agri., Lansing,<br>Mich.<br>Seed Laboratory, University Farm, St. Paul,<br>Minn.<br>Enforcement Dept. of Agriculture, State Office<br>Bldg., St. Paul, Minn. |
| Minnesota      | Sugar beets and mangels labeled as field seeds.   | 10 point type for year vegetable was packed.   | No<br>No  | None<br>None   |                                       | Dept. of Agriculture, Jackson, Miss.<br>Federal State Laboratory, Columbia, Mo.<br>Enforcement State Board of Agriculture, Jefferson City, Mo.  |
| Mississippi    | Does not apply.<br>Kind and variety.<br>Year for which packed.                                      | Hard seeds must not be included in % germination.<br>Hard seeds must not be included in % germination.<br>Name of each discernible disease and % seeds infected.<br>Actual bushel weight of field seeds.   | No<br>No<br>No  | None<br>None<br>None                                 | Pur. 50c-\$2.00,<br>Germ. 25c         | State Grain and Seed Laboratory, Bozeman,<br>Mont.<br>Seed Laboratory, Dept. of Agriculture, Lincoln,<br>Nebr.<br>State Board of Stock Commissioners, Reno,<br>Nevada.                    |
| Missouri       | Name and address of vendor.<br>Does not apply.  | Turips, rutabaga and mangels labeled as field seeds.<br>Garden seed and flower seed in tied or sealed packets must be marked with year tested.<br>1 lb.—name, % germination, date tested.<br>% of inert if over 5%.  | Mark year tested  | None   |                                       | Seed Laboratory, Agricultural Experiment Station, Durham, N. H.<br>Enforcement Commissioner of Agriculture, Concord, N. H.  |
| Montana        | Does not apply.   | Seed worthless as seed or for feed, or seed carrying over 1 noxious weed in every 5 grams is forfeited to state.   | No  | None   |                                       | State Seed Laboratory, New Jersey Agricultural Experiment Station, New Brunswick, N. J.   |
| Nebraska       | 1 lb.—labeled as field seeds.   | 8 point heavy gothic caps for label.   | No  | None   |                                       | Agricultural Experiment Station, State College, N. Mex.   |
| Nevada         | Does not apply.   | Vegetable label not less than 10 point type.   | No  | None   | Pur. 25c, Germ. 25c.                  | State Seed Laboratory, Agricultural Experiment Station, Geneva, N. Y.   |
| New Hampshire  | Each lot labeled % germination.<br>Date of test.  | Commissioner of Agriculture may remove poor seed even if correctly labeled.  | No  | Annual license \$25.00.                              |                                       | Enforcement Commissioner of Agriculture, Albany, N. Y.  |
| New Jersey     | Must be true to variety as named.   |  | Over 5 lbs.   | \$1.50, Germ. \$1.00                                 |                                       | Seed Laboratory, Agricultural Experiment Station, College Station, Fargo, N. Dak.   |
| New Mexico     |   |  | 10 lb. or more retailed to farmer must have tag purchased from Commissioner of Agriculture. | \$5.00 annually for each separate place of business. |                                       | State Seed Laboratory, Department of Agriculture, Columbus, Ohio.   |
| New York       |   |  | No  | None   | Pur. and Germ. 50c, Singly 30c        | State Board of Agriculture, Oklahoma City, Okla.  |
| North Carolina |   |  | 1 lb.   | None   | Pur. 25c, Germ. 25c.                  | Federal State Laboratory, Agricultural Experiment Station, Corvallis, Ore.  |
| North Dakota   | Does not apply to less than 5 lbs.  |  |   |  |                                       |   |
| Ohio           | Sweet corn, cabbage, peas or beans are "agriculture seeds"—label as field seeds.                    | Do not allow variation over 10% in germination.  | No  |  |                                       |   |
| Oklahoma       | Any vegetable grown in Oklahoma on field scale considered as agriculture seed—label as field seeds. |  | No  |  |                                       |   |
| Oregon         | 1 lb.—label purity and germination.   |  | 1 lb.   | None   |                                       |   |

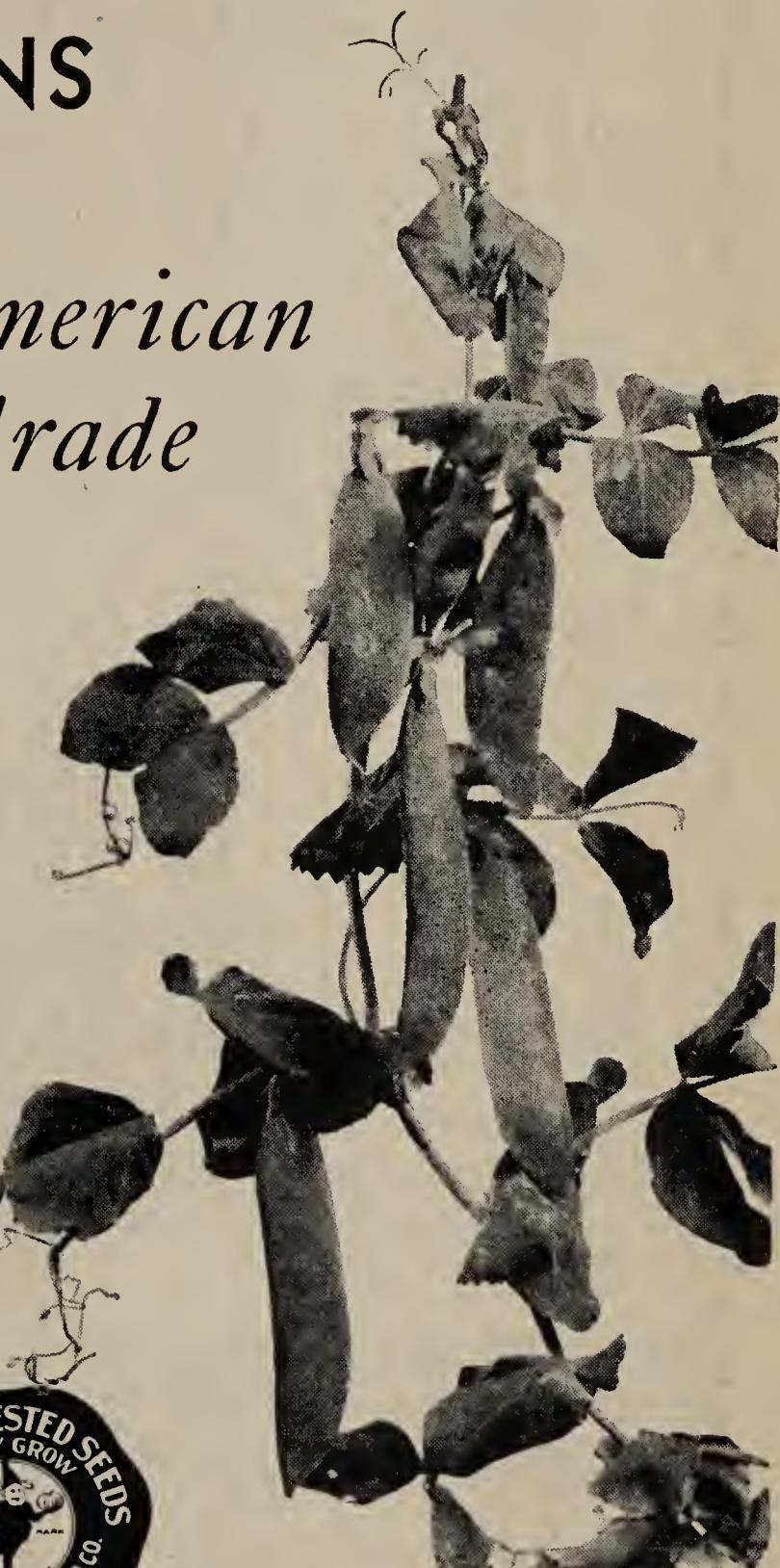
# Alfred J. Brown Seed Company

Growers of GARDEN PEAS  
AND BEANS  
*for*  
*The Wholesale American*  
*and Export Trade*

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Our strain of Laxton Progress grown from single vine and pod selection.

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## ALFRED J. BROWN SEED CO. GRAND RAPIDS MICHIGAN

## Summary of Requirements in Various State Seed Laws for the Labeling of Garden and Field Seeds—Continued

|                | Vegetable Seeds  | Special Requirements or Regulations for Both Field and Garden Seeds  | Flower Seeds | License or Tax  | Test Fee for Out-of-State Individuals                   | Address—Laboratory  |
|----------------|--|--|--------------|---|---|---|
| Pennsylvania   | Vegetable Seed defined in law but excluded from labeling.<br>Every lot—kind of seed and variety.<br>Name and address of vendor.<br>Does not apply. | Corn must be tagged % germination, variety and county and state where grown.   | No           | None<br><br>\$1-\$25 license.<br><br>\$25 per annum regular seed business.<br>None                      | Pur. 25c, Germ. 25c.<br>Pur. 50c-\$1.25, Germ. 30c-50c. | State Laboratory, Bureau of Plant Industry, Department of Agriculture, Harrisburg, Pa.<br>Bureau of Markets, Providence, R. I.<br>Seed Laboratory, Department of Agriculture, Columbia, S. Car. |
| Rhode Island   | Does not apply.  | Correct weight.<br>Before sale vendor must file with Commissioner of Agriculture a certified copy of information requested on the lot offered for sale.  | No           | Inspection Tax stamps 2c per bu.<br>Buy tags 10-150 lbs. 1c; 150-200 lbs. 2c                            | Pur. 25c, Germ. 25c.                                    | Seed Laboratory, Department of Agriculture, Providence, R. I.   |
| South Carolina | Does not apply.  | Applies only to onion and spinach.<br>Label as field seeds.  | No           | None  |   | State Seed Laboratory, Department of Agriculture, Columbia, S. Car.   |
| South Dakota   | Included as "Agriculture Seeds."<br>Label as field seeds.  | Seeds in small packages or from bulk in small amounts may be exempt provided container of packages or seed is labeled.   | No           | None  |   | State Seed Laboratory, State Board of Agriculture, Salt Lake City, Utah.  |
| Tennessee      | Every separated container marked "Packed For" and year.  | Hard seeds must not be included in % germination.<br>Label "Mixed cowpeas" or "Mixed soybeans" if less than 90% of one variety.<br>Label "cowpeas" or "soybeans" if 90% to 98% one variety. Label one variety if it is 98% one variety.        | No           | \$5.00 for each brand for each year.<br>\$10.00 per year.   |   | Seed Laboratory, State Board of Agriculture, Burlington, Vt.<br>Seed Laboratory, Agricultural Experiment Station, Pullman, Wash.<br>Enforcement Department of Agriculture, Olympia, Wash.       |
| Texas          | Includes "Agriculture Seeds."<br>Label as field seeds.   | No license fee for mixed or unmixed seeds used solely for lawn and golf courses.<br>Prohibit sale of insect infested seed—weevil, chalcifly, etc.<br>Prohibit any sale any seed except medical herbs and flowers if less than 60% germination. | No           | \$5.00 for registration certificate for each kind and variety of agriculture or vegetable seed.<br>None | Pur. and Germ. 25c, Singly 15c                          | Seed Laboratory, Department of Agriculture, Agronomy Bldg., Madison, Wis.   |
| Utah           | Does not apply.  | Prohibit sale if less than $\frac{2}{3}$ standard.<br>Must be true to variety as labeled.  | No           |   |   | Department of Agronomy, Agricultural Experiment Station, Laramie, Wyo.  |
| Virginia       | Included as "Agriculture Seeds."<br>Label as field seeds.  | Hard seeds must not be included in % germination.<br>"Grimm Alfalfa" can be sold only in containers sealed by agents of state where grown.   | No           |   |   |   |
| Vermont        | Every lot.<br>% germination if 5% below standard.  |  |              |   |   |   |
| Washington     | 1 lb. or over.<br>Included as "Agriculture Seed."<br>Label as field seeds.   |  |              |   |   |   |
| West Virginia  |  |  |              |   |   |   |
| Wisconsin      |  |  |              |   |   |   |
| Wyoming        |  |  |              |   |   |   |

# TIMOTHY CLOVER

and all kinds of

## FIELD SEEDS

POP CORN

Buyers and Sellers  
Carlots or Less



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SEED COMPANY  
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Recleaners—First Hand

A primary source for a wide variety of  
staple farm and grass seeds.



|               |                |               |
|---------------|----------------|---------------|
| *Alfalfa      | Red Top        | Soybeans      |
| *Red Clover   | Timothy        | Cowpeas       |
| Sweet Clover  | Meadow Fescue  | Sudan Grass   |
| Lespedeza     | Ky. Blue Grass | Cane          |
| Other Clovers | Orchard Grass  | Millets       |
| Bermuda Grass | Other Grasses  | Sunflower     |
| Lawn Grass    | Seed Corn      | Other Grains  |
|               |                | Ensilage Corn |

\*U. S. Verified Origin

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Farmer knows genuine*

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STATE  
SEALED AND  
CERTIFIED  
REGISTERED

**GRIMM  
ALFALFA SEED**

**A  
STEP IN ADVANCE  
use**

**BLACKFOOT BRAND**

**Idaho Grimm Alfalfa Seed Growers' Ass'n  
Blackfoot, Idaho**



## Field Seeds, Mixed Field Seeds and Lawn Grass or Special Mixtures

Key to Symbols and Abbreviations on page 17.

|                        |  |  |  |
|------------------------|--|--|--|
| Kansas<br>1929         | 10 lbs.<br>X .. . . . X X ... If over $\frac{1}{10}$ of 1% give 10 lbs.<br>% by number of each. (P. certain<br>weeds.)               | X X .. . . . X X X .. . . . X X X As for unmixed field<br>seeds.     | 1 lb. X .. X X .. . . X X N. Oz. . . . N. Oz. (5 lbs. or less<br>exempt from nox.<br>weed sections.) |
| Kentucky<br>1932.      | 1 lb. X X .. . . . X X .. . . . N. Oz.   | 1 lb. X X X .. . . X X N. Oz.  | 1 lb. X .. X X .. . . X X N. Oz. . . . N. Oz. (5 lbs. or less<br>exempt from nox.<br>weed sections.) |
| Louisiana<br>1934      | 10 lbs. X X .. . . . X X X N. Oz. A.   | 10 lbs. X X X .. . . X X N. Oz. B.                                   | 8 oz. X .. X X .. . . X X N. Oz. B.  |
| Maine<br>1919          | Every Lot X .. . . . X .. . . . N. Lb.   | Every Lot X .. . . . X .. . . . X Yr.                                | /  |
| Maryland<br>1927       | 10 lbs. X X .. . . . X .. . . . N. A.  | 10 lbs. X X X .. . . X .. . . . N. B.                                | 8 oz. X .. . . X X .. . . X .. . . . N. B.   |
| Massachusetts<br>1927  | 10 lbs. X X .. . . . X .. . . . N. Oz. A.  | 10 lbs. X X X .. . . X .. . . . N. Oz. B.                            | Every Lot X .. . . X X .. . . X .. . . . N. Oz. B.   |
| Michigan<br>1923       | 1 lb. X X X X X .. . . N. A.   | 1 lb. X X X X X .. . . N. Lb.  | 8 oz. X X X X X .. . . N. Lb.  |
| Minnesota<br>1934      | 1 lb. X X P2% .. . . X X .. . . N. Lb. if between 10-<br>90 per lb. Under 10<br>per lb., called<br>"trace." (P. 90<br>per lb.)       | 1 lb. X X X P2% .. . . X X .. . . X X As for unmixed field<br>seeds. | As field seeds except<br>that for lawn mix-<br>tures the number<br>is not required.                  |
| Mississippi<br>1924    | 5 lbs. X X .. . . . X .. . . . N. A.   | 5 lbs. X X X .. . . X .. . . . N. B.                                 | 5 lbs. X .. . . X X .. . . . N. B.   |
| Missouri<br>1929       | 10 lbs. X X .. . . . X X .. . . . N. A. (P. Canada 10 lbs.<br>Thistle.)  | 10 lbs. X X X .. . . X .. . . . N. B.                                | 8 oz. X X X X .. . . N. B.   |
| Montana<br>1929        | 1 lb. X X X .. . . X .. . . . N. Oz. A.  | 1 lb. X X X .. . . X .. . . . N. Oz. B.                              | As mixed field seeds.  |
| Nebraska<br>1921       | 10 lbs. X X .. . . . X X* .. . . X X* .. . . X X* N. Oz. A. (P. Canada 10 lbs.<br>Thistle 1 in 5 gms.,<br>label less quan-<br>tity.) | 10 lbs. X X X .. . . X X* N. Oz. B. (P. as in 4 oz.<br>field seeds.) | 4 oz. X .. . . X X .. . . X X* N. Oz. B. as in 4 oz.<br>field seeds.                                 |
| Nevada<br>1929         | 1 lb. X X X X X .. . . X (law)<br>.. . . X X .. . . . N. A.  | 1 lb. X X X X .. . . X .. . . . N. B.                                | 1 lb. X X X X .. . . X .. . . . N. B.  |
| New Hampshire<br>1921  | 1 lb. X .. . . . X .. . . . None   | 10 lbs. X .. . . . X X .. . . . N. Lb. 1 in 5 gms.                   | As mixed field seeds.  |
| New Jersey<br>1931     | 10 lbs. X .. . . . X .. . . . N. Lb. 1 in 5 gms.   | Every Lot X .. . . . X X .. . . . N. Lb. 1-5 gms.                    |  |
| New Mexico<br>1919     | 1 lb. .. X X X X .. . . % by weight of each.   | Every Lot X X X .. . . X .. . . . N. Lb. B.                          |  |
| New York<br>1934       | Every Lot X X .. . . X X .. . . . N. Lb. A.  | Every Lot X X X .. . . X .. . . . N. Lb. B.                          |  |
| North Carolina<br>1931 | Every Lot X X .. . . X X .. . . . % each.  | Every Lot X X X .. . . X .. . . . N. Lb. B.                          | See mixed field seeds.   |

## Field Seeds, Mixed Field Seeds and Lawn Grass or Special Mixtures (Continued)

| FIELD SEEDS<br>Label Requirements          |                                | MIXED FIELD SEEDS<br>(Sometimes limited to 2 kinds)<br>Label Requirements  |  | LAWN GRASS MIXTURE OR SPECIAL MIXTURE<br>Label Requirements |   |
|--|--------------------------------|--|--|---|---|
| Date of Last Amendment<br>or Re-regulation | Noxious Weeds<br>(See Page 18) | Weight to be Labeled   | % Pure Seed  | % Inert Matter  | % Other Crop Seeds  |
|  | Year Crown                     | Where Grown  | % Germ. & Date Tested  | % Germ. & Date Tested                                       | % Germ. & Date Tested   |
| North Dakota<br>1931                       | Every Lot                      | X X .. X X* .. N. Lb. A <sub>a</sub>   | ..   | N. Lb. B.   | X X .. X X* N. Lb. B.   |
| Ohio<br>1929                               | 10 lbs.                        | X X .. X X* .. N. each A.  | ..   | Every Lot 10 lbs.   | X X .. X X* .. N. B.  |
| Oklahoma<br>1929                           | Every Lot                      | X X .. X X .. N. A.  | ..   | Every Lot   | X X .. X X* .. N. B.  |
| Oregon<br>1913                             | 1 lb.                          | May be labeled standard.<br>If below standard give<br>$\begin{cases} \text{If } \\ \{2\% \} \end{cases}$ { If } { 2% } .. X X .. | N.(a) (P. 1 in 500<br>seeds.)<br>(b) (P. 1 in 5000<br>seeds.)<br>(c) (P. 1 in 20000<br>seeds.) | ..  | X X .. X X* .. X X* N. Oz. B. (P. as in<br>field seeds.)                      |
| Pennsylvania<br>1921                       | 10 lbs.                        | X X P3% .. X X* ..   | N.Oz.A. (P. Dodder 10 lbs.<br>& Canada Thistle 1in5gms.)                                       | Every Lot   | X .. X X X .. X X* N. Oz. B. (P. as in<br>field seeds.)                       |
| Rhode Island<br>1929                       | Every Lot                      | X X .. X X .. N. Oz. A.  | ..   | Every Lot   | X .. X X X .. X X* N. Oz. B.  |
| South Carolina<br>1922                     | 1 lb.                          | X { If } { 2% } .. X X ..  | N. if less than 20 in<br>1,000 seeds, (P. if<br>over.)   | ..  | Exempt until regulations are<br>made by Dep't of Agriculture.                 |
| South Dakota<br>1925                       | 1 lb.                          | (P. 10% impurities.)   | Name.  | 1 lb.   | X .. .. .. ..   |
| Tennessee<br>1925                          | 1/2 bu.                        | May label "Standard." If below<br>standard label X { If } { 2% } { 10% }   | Name. (P. 1 in 5 1/2 bu.<br>gms.). (P. any<br>Onion and John-<br>son grass.) X ..              | X X Otherwise as field seeds.                               | Mixtures for lawn or pasture<br>exempt except from weed sec-<br>tions of law. |
| Texas<br>1931                              | 10 lbs.                        | X X X X X N. A.  | 10 lbs.  | X .. X X .. X .. N. A.                                      | See mixed field seeds.  |

|                       |              |                             |                      |  |                  |                      |                      |   |
|-----------------------|--------------|-----------------------------|----------------------|--|------------------|----------------------|----------------------|---|
| Utah<br>1933          | Every<br>Lot | X X .. . . . .              | X X .. . . . .       | N. Group I Lb.<br>(P. Group II.)   | Every<br>Lot     | X .. . . . .         | X X .. . . . .       | X* N. Group I Lb.<br>(P. Group II.)         |
| Virginia<br>1934      | 10 lbs.      | X X P3% .. . .              | X X* .. . . .        | N. Oz. (P. Dodder 2<br>in 5 gms.).   | 10 lbs.<br>{10%} | X P3% .. . .         | X X P3% .. . .       | N. Oz. (P. Dodder 2<br>in 5 gms.).          |
| Vermont<br>1926       | 10 lbs.      | X X .. . . . .              | X X* .. . . .        | N. Oz. A.  | 10 lbs.<br>{10%} | X P3% .. . .         | X X P3% .. . .       | N. Oz. (P. Dodder 2<br>in 5 gms.).          |
| Washington<br>1923    | 1 lb.        | X { if } { 1/2% } ..        | X { If } { 1/2% } .. | (a) P. Any<br>(b) P. 5 per lb.<br>(c) P. 15 per lb.<br>(d) P. 90 per lb.   | 1 lb.<br>{2%}    | X { Over } { 2% } .. | X { Over } { 1% } .. | X X P3% .. . .                              |
| West Virginia<br>1926 | Every<br>Lot | X X P3% .. . .              | X X .. . . .         | N. Oz. A. (P. certain<br>weeds if over 1 in 5<br>gms.)                     | Every<br>Lot     | X X P3% .. . .       | X X P3% .. . .       | N. Oz. B. (P. as in<br>field seeds.)        |
| Wisconsin<br>1931     | 1 lb.        | X { If } { Over } { 2% } .. | X X* .. . . .        | P. 1 in 3,000 seeds,<br>P. Buckhorn 1 in<br>1,000 seeds, name<br>if fewer. | 1 lb.            | X X .. . . .         | X X .. . . .         | Exempt except from weed sections<br>of law. |
| Wyoming<br>1929       | Every<br>Lot | X P3% .. . . .              | X X .. . . .         | P.   | Every<br>Lot     | X X P3% .. . .       | X X P3% .. . .       | N. Oz. B. (P. as in<br>field seeds.)        |

## Key to Symbols and Abbreviations Used in Summary of State Seed Laws

P.—Prohibited.

N.—Name.

X.—Required on Seed Label.

Oz.—Give the approximate nu-

Lb.—Give the approximate number per lb.

name the noxious weeds which are present singly or collectively as follows:

(1) In excess of one seed in each 5 grams of timothy, redtop, Kentucky or Canada bluegrass,

rescues, brome grass, ryegrasses, clovers, anana, etc.

- (2) One in 25 grams of millets, rape, flax, sudan.
- (3) One in 100 grams of wheat, oats, rye, barley, buckwheat, vetches and other seeds as large or

larger.

(1) In excess of one seed in 20 grams.  
(2) In excess of one seed in 50 grams

(2) In excess or one seed in 90 g. ams.  
 (3) In excess of one seed in 100 grams

\*—Illinois where grown stated only on corn.

Nebraska where grown stated only on Turkestan and Italian alfalfa and Chilean and Iranian red clover.

N. Dakota where grown stated only on corn (giving county as well as state) and alfalfa and clovers.

Pennsylvania where grown stated only on Turkstan and Italian alfalfa and Chilean and Italian Ohio where grown only for aerial and red clover.

red clover.

Texas—year in which grown stated only on onion and spinach.

Vermont where grown only on imported alfalfa, red clover and orchard grass. Virginia where grown only on Turkestan and Italian alfalfa and Italian Chilean

Wisconsin where grown only on cereal grains, corn, and alfalfa.

This tabulation includes only such label requirements as may vary in the different states. It is presumed that every label will state the full name and address of the vendor and the commonly accepted

<sup>12</sup> See also the discussion of the seed, also if the seed is a mixture, that it s

# NOXIOUS WEED SEEDS

PRACTICALLY all of the State Seed Laws name some noxious weed seeds. The sale of agricultural seed containing any of the noxious weed seeds is prohibited in some of the states. Most states, however, allow a very small percentage to be present. Regulations vary in the different states. A complete summary of all state seed laws may be found on page 8.

|                  |  |
|------------------|--|
| Alabama .....    | Wild Onion, Bermuda Grass, Quack Grass, Dodder, Johnson Grass, Nut Grass, Canada Thistle, Hawkweed, Corn Cockle, Chicory.  |
| Arizona .....    | Dodders, Russian Thistle, Johnson Grass, Bermuda Grass, Florida Nut Grass, Wild Mustard, Careless Weed, Wild Oats, Lamb's Quarter, Wild Barley, Rag Weed, Burr Grasses. Prohibit Johnson Grass, Canada Thistle, Russian Thistle, Scotch Thistle, Bull Thistle, Cocklebur, and Burdock. (Nox. weed law of 1913.)            |
| Arkansas.....    | Dodders, Buckhorn, Plantains, Sorrels, Docks, Cheat, Red Rice, Wild Carrot, Wild Onion, Thistle, Nut Grass, Johnson Grass, Whitetop.   |
| California.....  | Primary Noxious: Johnson Grass, Camel's Thorn, Hoary Cress, Morning Glory, Canada Thistle, Russian Knapweed. Secondary Noxious: Yellow Star Thistle, Goat Grass, Coast Dandelion, Russian Thistle, Silver-leaf Nightshade, Creeping Sow Thistle, Klamath Weed, Nut Grass, White or Creeping Mallow, Dodder, Puncture Vine. |
| Colorado.....    | Dodders, Wild Oats, Plantains, Bindweed, Poverty Weed, Crab Grass, Cheat, Canada Thistle, Cockle, Sow Thistle, Wild Barley, Hopclover, Mustards.   |
| Connecticut....  | Quack Grass, Canada Thistle, Plantain, Hawkweed, Dodder, Curled Dock.  |
| Delaware.....    | Quack Grass, Canada Thistle, Dodders, Wild Mustard, Wild Oats, Orange Hawkweed.  |
| Idaho.....       | Wild Mustards, Quack Grass, Canada Thistle, Wild Oats, Dodders, Corn Cockle, Plantains, Perennial Sow Thistle, French Weed, Hoary Cress, Wild Morning Glory, Spurge, Puncture Vine, Yellow Toadflax, Russian Knapweed,   |
| Illinois.....    | Canada Thistle, Quack Grass, Wild Mustard, Wild Carrot, Dodder, Dock, Buckhorn Plantain, Ox-eye Daisy, Field Sorrel, Johnson Grass.  |
| Indiana.....     | Buckhorn, Bracted Plantain, Canada Thistle, Chicory, Common Plantain, Corn Cockle, Curled Dock, Dodder, Horse Nettle, Wild Mustard, Ox-eye Daisy, Prickly Lettuce, Quack Grass, Red Sorrel, Whitetop, Wild Carrot, Wild Onion, Yellow Trefoil.   |
| Iowa.....        | Primary Noxious: Quack Grass, Canada Thistle, Perennial Sow Thistle, Perennial Pepper Grass, European Morning Glory, Horse Nettle, Leafy Spurge, Russian Knapweed, Buckhorn. Secondary Noxious: Wild Carrot, Sour Dock, Smooth Dock, Sheep Sorrel, Wild Oats, Wild Mustard, Indian Mustard, Black Mustard, Dodders.        |
| Kansas.....      | Canada Thistle, Corn Cockle, Buckhorn, Mustards, Frenchweed, Quack Grass, Wild Parsnip, Wild Onion. Prohibit 1-5 grams Dodder and Johnson Grass. Prohibit 1-100 grams Field Bindweed.  |
| Kentucky.....    | Quack Grass, Dodders, Sorrel, Buckhorn, Corn Cockle, Wild Onion, Canada Thistle.   |
| Louisiana.....   | Johnson Grass, Tie Vine, Cocklebur, Wild Mustards, Crab Grass, Large Docks, Dandelion, Cocoa Grass, Dodder, Foxtail, Ox-eye Daisy, Thistle, Bermuda Grass.   |
| Maine.....       | None listed in law itself—large list named in Regulations.   |
| Maryland.....    | Wild Onion, Bermuda Grass, Quack Grass, Dodder, Canada Thistle, Hawkweed, Chicory.   |
| Massachusetts .  | Dodder, Quack Grass, Wild Mustard, Canada Thistle.   |
| Michigan.....    | Quack Grass, Dodders, Canada Thistle, Wild Carrot, Mustards.   |
| Minnesota.....   | Quack Grass, Canada Thistle, Perennial Sow Thistle, Dodders, Leafy Spurge, Ox-eye Daisy, Buckhorn Plantain.  |
| Mississippi..... | Wild Onion, Bermuda Grass, Quack Grass, Dodder, Johnson Grass, Nut Grass, Canada Thistle, Hawkweed, Corn Cockle, Chicory.  |
| Missouri.....    | Quack Grass, Dodders, Russian Thistle, Wild Carrot, Sorrels, Docks, Wild Onion, Buckhorn and other varieties of Plantain. Prohibit Canada Thistle.   |
| Montana.....     | Quack Grass, Fan Weed, Wild Oats, Dodder, Canada Thistle, Wild Mustard.  |
| Nebraska.....    | Small Flowered Morning Glory, Wild Mustard, Quack Grass, Wild Oats, Dodders, Canada Thistle.   |
| Nevada.....      | Dodder, Star Thistle, Thistles, Russian Thistle, Hoary Cress, Morning Glory, Johnson Grass, Nut Grass, Creeping Mallow, St. Johnswort, Dandelion, Water Cress, Puncture Vine, Mustards.  |
| New Hampshire    | No noxious weeds named.  |
| New Jersey....   | Canada Thistle, Dodders, Quack Grass, Horse Nettle, Russian Knapweed.  |
| New Mexico...    | Quack Grass, Fan Weed, Mustard, Wild Oats, Dodder.   |
| New York.....    | Quack Grass, Wild Mustards, Canada Thistle, Dodder, Crab Grasses, Docks.   |
| North Carolina.  | Wild Onion or Wild Garlic, Dodder, Wild Oats, Corn Cockle, Cheat.  |
| North Dakota..   | Quack Grass, Canada Thistle, Perennial Sow Thistle, Dodder, Leafy Spurge, Field Bindweed.  |

## NOXIOUS WEED SEEDS—Continued

|                 |  |
|-----------------|--|
| Ohio.....       | Canada Thistle, Wild Onion, Quack Grass, Dodders, Plantains, Wild Carrot, Ox-eye Daisy, Corn Cockle, Docks, Chicory.   |
| Oklahoma .....  | Dodder, Russian Thistle, Bindweed, Johnson Grass, Canada Thistle, Perennial Bull Nettle.   |
| Oregon.....     | (a) Wild Oats; (b) Wild Mustard and Corn Cockle; (c) Canada Thistle, Dodders, Quack Grass.   |
| Pennsylvania... | Wild Onion, Quack Grass, Canada Thistle, Devil's Paint Brush, King Devil, Perennial Sow Thistle, Horse Nettle, Bindweed, Dodder.   |
| Rhode Island..  | Quack Grass, Canada Thistle, Dodders, Wild Mustards, Crab Grasses, Docks, Corn Cockle, Buckhorn, Wild Carrot.  |
| South Carolina. | Clover Dodder, Field Dodder, White Mustard, Wild Oats.   |
| South Dakota..  | Quack Grass, Canada Thistle, Dodder.   |
| Tennessee.....  | Wild Mustard, Quack Grass, Canada Thistle, Wild Oats, Dodders, Cockle, Sour Dock, Ox-eye Daisy, Wild Onion, Johnson Grass.   |
| Texas.....      | Dodder, Johnson Grass, Russian Thistle, Bindweed, Blue Weed, Wire Grass, Bermuda Grass.  |
| Utah.....       | Group I: All Mustards, Dodders, Buckhorn, Wild Oats, Fanweed. Group II: White Top, Canada Thistle, Wild Morning Glory, Whorled Milkweed, Burdock, Russian Knapweed, Puncture Vine, Perennial Sow Thistle, Ground Cherry, Quack Grass.                          |
| Vermont.....    | Quack Grass, Mustards, Canada Thistle, Dodder, Ergot, Corn Cockle, Poison Hemlock.   |
| Virginia.....   | Quack Grass, Wild Onion Bullets, Canada Thistle, Dodder, Bermuda Grass, Hawkweed, Johnson Grass.   |
| Washington... . | (a) Bindweed or Wild Morning Glory, Canada Thistle, Corn Cockle; (b) Quack Grass, Dodder, Fanweed, Perennial Sow Thistle, Poverty Weed; (c) Wild Oats; (d) Russian Thistle, Wild Mustard, Jim Hill Mustard ( <i>Sisymbrium altissimum</i> ), Buckhorn, Darnel. |
| West Virginia.. | Wild Onion, Johnson Grass, Hawkweed, Buckhorn, Wild Mustard, Indian Mustard, Corn Cockle, Ox-eye Daisy, Star Thistle, Wild Carrot, Galinsoga. Prohibit 1-5 grams. Quack Grass, Canada Thistle, Dodder, Perennial Sow Thistle.                                  |
| Wisconsin.....  | Canada Thistle, Quack Grass, Dodders, Wild and Indian Mustard, Buckhorn, Wild Oats, Corn Cockle, Ox-eye Daisy, Snapdragon, Sow Thistle.  |
| Wyoming.....    | Wild Mustard, Quack Grass, Canada Thistle, Corn Cockle, Dodder.  |

# DAYLIGHT GERMINATOR

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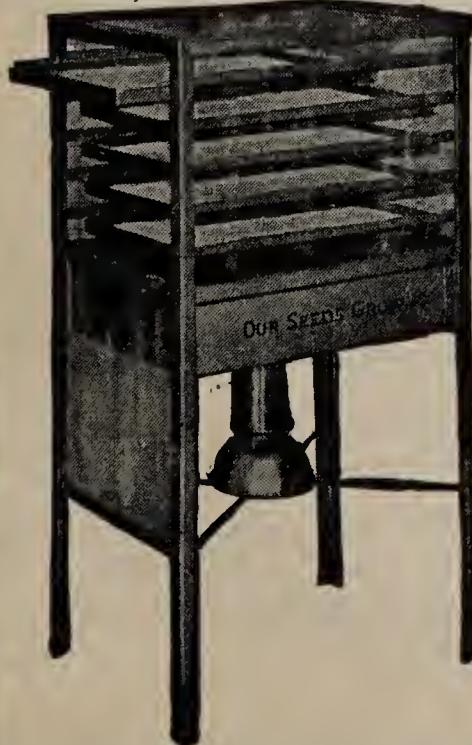
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Lane Wilson, 2nd Vice Pres.,  
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#### Pacific States Seedsmen's Ass'n

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#### Southern Seedsmen's Ass'n

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Bunton Seed Co.,  
Louisville, Ky

E. D. Hicks, Jr., 1st Vice Pres.,  
c/o Dobson-Hicks Co.,  
Nashville, Tenn.

A. J. Biggio, 2nd Vice Pres.,  
c/o Robert Nicholson Seed Co.,  
Dallas, Texas

Frank S. Love, Sec'y-Treas.,  
Box 3536, Station F.,  
Jacksonville, Fla.

#### Western Seedsmen's Ass'n

Berkeley Michael, Pres.,  
c/o Sioux City Seed Co.,  
Sioux City, Ia.

John W. Mathys, Vice Pres.,  
c/o Northrup, King & Co.,  
Minneapolis, Minn.

Earl M. Page, Sec'y,  
c/o Cornelius Seed Co.,  
St. Louis, Mo.

H. G. Windheim, Treas.,  
c/o Nebraska Seed Co.,  
Omaha, Nebr.

### State Associations

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Fort Smith, Ark.

W. E. Bass, Sec'y-Treas.,  
c/o Bass-Isgrig Seed Co.,  
Little Rock, Ark.

#### Colorado Seedsmen's Ass'n

Guy R. Vaughn, Pres.,  
c/o Associated Seed Growers, Inc  
Greeley, Colo.

Chas. I. Simpson, Sec'y-Treas.,  
c/o Simpson Seed & Floral Co.,  
Denver, Colo.

#### Connecticut Seed Trade Ass'n

E. W. Willard, Pres.,  
c/o Comstock, Ferre & Co.,  
Wethersfield, Conn.

E. H. Hart, Sec'y-Treas.,  
c/o Chas. C. Hart Seed Co.,  
Wethersfield, Conn.

#### Georgia Seed Dealers' Ass'n

H. G. Hastings, Pres.,  
c/o H. G. Hastings Co.,  
Atlanta, Ga.

L. Cottongim, Sec'y-Treas.,  
c/o Louis Cottongim Seed Co.,  
Atlanta, Ga.

#### Central Illinois Seed Trade Ass'n

E. D. Funk, Jr., Pres.,  
c/o Funk Bros. Seed Co.,  
Bloomington, Ill.

W. G. Kelly, Sec'y-Treas.,  
c/o Kelly Seed & Hdw. Co.,  
San Jose, Illinois.

#### Iowa Seed Dealers' Ass'n

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c/o Iowa Seed Co.,  
Des Moines, Ia.

Henry Kling, Sec'y,  
c/o Hamilton Seed & Coal Co.,  
Cedar Rapids, Ia.

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c/o Yopp Seed Co.,  
Paducah, Ky.

Owen T. Watts, Sec'y-Treas.,  
114 N. Galt Ave.,  
Louisville, Ky.

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c/o Reuter Seed Co., Inc.,  
New Orleans, La.

Frank M. Bacque, Sec'y-Treas.,  
c/o Bacque Seed Co.,  
Lafayette, La.

#### Minnesota Seed Dealers' Ass'n

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c/o Dickinson Feed & Seed Co.,  
Minneapolis, Minn.

Howard Withey, Sec'y-Treas.,  
c/o Northrup, King & Co.,  
Minneapolis, Minn.

#### Missouri Seedsmen's Ass'n

W. G. Kelly, Pres.,  
c/o Kellogg-Kelly Seed Co.,  
St. Joseph, Mo.

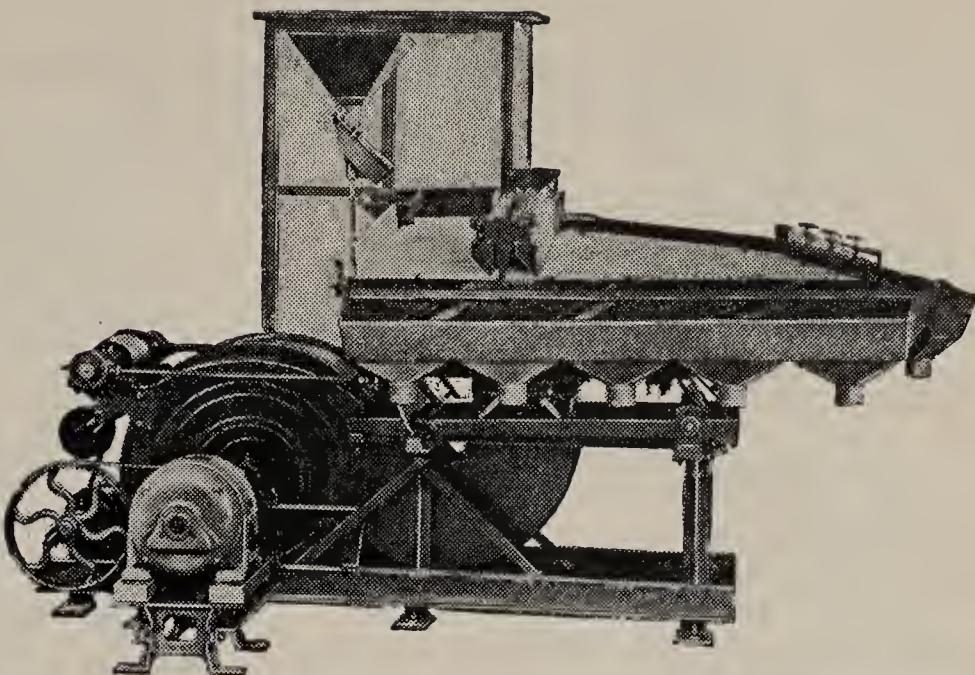
Carl Chesmore, Jr., Sec'y,  
c/o Chesmore Seed Co.,  
St. Joseph, Mo.

#### Nebraska Seed Dealers' Ass'n

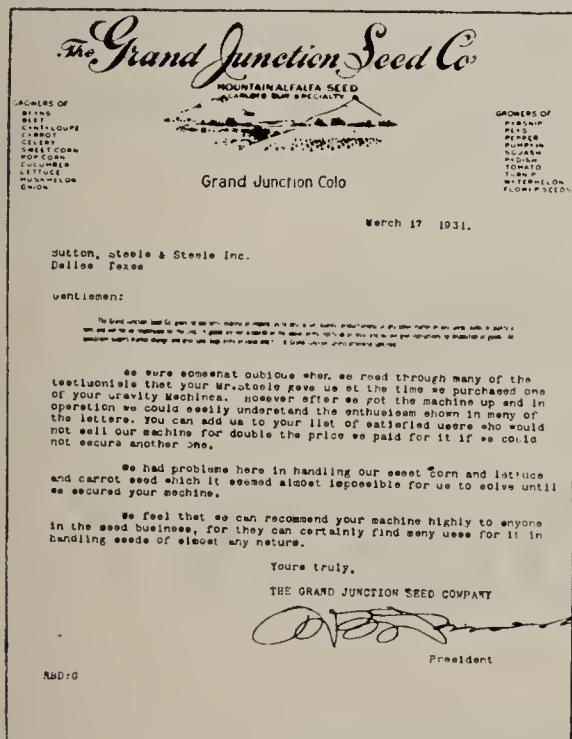
B. F. Sheehan, Pres.,  
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Increases Profits by eliminating contamination and salvaging good material from your commodity. The HV Model Specific Gravity Separator is especially designed to remove contaminating elements from any dry commodity. Eliminating contamination naturally increases the value of any commodity, and adds extra profits. In the preparation of any commodity, such as seeds, there is a certain amount thrown away as waste. That waste contains good material which the HV model will salvage. The added profits from this salvaging alone often allows the HV model to pay for itself. How can you lose on an investment that pays for itself?

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Upon receipt of information as to the commodity you desire to work on and the daily capacity required, we will be pleased to recommend the proper size and model of separator suitable for your work. We will also quote price and supply other desirable data. To well rated firms we are prepared to grant very easy terms, and where deferred payments are arranged we carry our own paper. Please make all requests on your business letter-head.

# ● Sutton, Steele and Steele, Inc.

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 c/o Job P. Wyatt & Sons Co.,  
 Raleigh, N. C.

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 c/o Epting Distributing Co.,  
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 L. Harry Mixson, Sec'y-Treas.,  
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**Tennessee Seed Dealers' Ass'n**

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 c/o Dobson-Hicks Co., Inc.,  
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 Mrs. Katherine Treanor, Sec'y,  
 c/o R. B. Buchanan Seed Co.,  
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**Texas Seedsmen's Ass'n**

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 c/o Robert Nicholson Seed Co.,  
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 J. H. Meredith, Sec'y-Treas.,  
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 Wm. P. Wood, Jr., Sec'y-Treas.,  
 c/o T. W. Wood & Sons,  
 Richmond, Va.

**Wisconsin Seed Dealers' Ass'n**

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 c/o L. L. Olds Seed Co.,  
 Madison, Wis.  
 J. W. Jung, Sec'y-Treas.,  
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CLOVER SEED**

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SOY BEANS  
SEED CORN  
COTTON SEED

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**Sunflower**

**Alfalfa**

**Beans**

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**PARAMOUNT  
SEED CO.**

**Stockton, Calif.**

## CHARACTERISTICS OF FIELD SEEDS

| VARIETY  | Viability of Good Seed | Purity of Good Seed | Average Germination One Year Old | Average Length of Vitality Years | Weight of Seed Per Bu. Legal | Weight of Seed Per Bu. Actual | Quantity Required Per Acre | Yield of Seed Per Acre | Number of Seeds Per Pound Average |
|--|------------------------|---------------------|----------------------------------|----------------------------------|------------------------------|-------------------------------|----------------------------|------------------------|-----------------------------------|
|  |                        |                     |                                  |                                  |                              |                               |                            |                        |                                   |
| Alfalfa.....   | 97.99                  | 98.99               | 94                               | 6-8                              | 60                           | 60-63                         | 15-20                      | 300-700                | 220,000                           |
| Bluegrass, Kentucky.....                                   | 70-85                  | 75-85               | 70-85                            | 3-4                              | 14                           | 14-28                         | 20-30                      | 200-350                | 2,400,000                         |
| Bluegrass, Canada.....                                     | 85                     | 75-85               | 70-85                            | 3-4                              | 14                           | 14-24                         | 15                         | 200-500                | 2,400,000                         |
| Brome Grass.....   | 90-95                  | 98-99               | 85-90                            | 5                                | 14                           | 12-20                         | 10-14                      | 250-350                | 137,000                           |
| Clover, Alsike.....  | 99                     | 99                  | 75                               | 2                                | 60                           | 60-66                         | 8-12                       | 100-300                | 700,000                           |
| Clover, Red.....   | 99                     | 99                  | 90                               | 5-6                              | 60                           | 60-63                         | 8-12                       | 100-300                | 250,000                           |
| Clover, White.....   | 99                     | 98                  | 75                               | 2                                | 60                           | 60-63                         | 8-12                       | 200-300                | 700,000                           |
| Clover, Crimson.....                                       | 99                     | 99                  | 90                               | 2                                | 60                           | 60-63                         | 12-20                      | 200-300                | 125,000                           |
| Clover, Sweet.....   | 95-98                  | 99                  | 90-95                            | 5                                | .....                        | .....                         | 20-30                      | 150-400                | 235,000                           |
| Cowpea.....  | 90                     | 99                  | 80                               | 2                                | 60                           | Variable                      | 30-60                      | 900-1800               | 1,800-5,100                       |
| Fescue, Meadow.....  | 95                     | 90                  | 93                               | 2                                | .....                        | 20-30                         | 10-15                      | 200-300                | 250,000                           |
| Millet, Foxtail (Common, Golden, Hungarian, Siberian)..... | 90                     | 98                  | 88                               | 4                                | 48-50                        | 40-55                         | 25-50                      | .....                  | 200,000                           |
| Orchard Grass.....   | 98                     | 97                  | 90                               | 2-3                              | 14                           | 12-22                         | 12-20                      | 140-168                | 400,000                           |
| Rape.....  | 95                     | 99                  | 90                               | 6                                | .....                        | .....                         | 2-4                        | 600-1000               | .....                             |
| Redtop.....  | 95                     | 95-98               | .....                            | 6                                | 14                           | 12-40                         | 10-20                      | .....                  | 4,135,900                         |
| Rye Grass, Perennial.....                                  | 95                     | 98                  | 80                               | 2                                | .....                        | 10-30                         | 25-35                      | 250-500                | 336,000                           |
| Rye Grass, Italian.....                                    | 95                     | 98                  | 80                               | 2                                | 20                           | 12-24                         | 35-40                      | 500                    | 285,000                           |
| Soy Bean.....  | 98                     | 99                  | 90                               | 2                                | 60                           | 20-30                         | 1000-2400                  | 1,144-6,388            |                                   |
| Timothy.....   | 98                     | 98                  | 95                               | 5-6                              | 45                           | 42-50                         | 9-15                       | 225-450                | 1,170,500                         |
| Vetch.....   | 95                     | 99                  | 90                               | 3                                | 60                           | 40-90                         | 60                         | 600-720                | 8,500-16,000                      |

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TIMOTHY  
RED TOP  
KY. BLUE GRASS  
LAWN GRASSES  
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Wholesale Field, Garden and Grass Seeds

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Domestic Rye Grass,  
Austrian Field Peas,  
Spring, Hungarian  
and Hairy Vetches,  
Seaside Bent Grass,  
Astoria Bent Grass,  
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and Reed Canary.

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# Exclusive Wholesale Seed Corn Growers

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SWEET, DENT, FLINT, ENSILAGE  
AND POP-CORNS

C. S. CLARK & SONS - Wakeman, Ohio

## RED CLOVER SEED PRICES AT TOLEDO

Low and High Cash Prices per Bushel for Prime Seed by Months

|        | Jan.    | Feb.   | Mar.   | Apr.   | May                               | June   | July   | Aug.   | Sept.                      | Oct.   | Nov.   | Dec    |
|--------|---------|--------|--------|--------|-----------------------------------|--------|--------|--------|----------------------------|--------|--------|--------|
| 1923.. | 13.25   | 12.95  | 11.95  | 11.45  | 11.00                             | 10.05  | 10.00  | 11.05  | 12.25                      | 14.15  | 12.95  | 12.95  |
|        | 13.50   | 13.65  | 13.15  | 12.00  | 11.45                             | 10.85  | 10.70  | 12.65  | 14.60                      | 15.20  | 14.25  | 13.40  |
| 1924.. | 12.60   | 11.35  | 11.30  | 10.75  | 10.80                             | 11.00  | 11.35  | 11.80  | 12.75                      | 16.50  | 17.65  | 19.05  |
|        | 13.90   | 12.85  | 12.35  | 11.50  | 11.40                             | 11.65  | 12.40  | 13.30  | 17.60                      | 18.20  | 19.90  | 19.80  |
| 1925.. | 19.15   | 18.10  | 16.50  | 16.40  | 15.00                             | 16.25  | 16.00  | 16.25  | 14.80                      | 16.75  | 14.30  | 14.75  |
|        | 19.85   | 20.00  | 18.75  | 17.20  | 16.30                             | 17.55  | 17.25  | 17.45  | 16.75                      | 18.25  | 15.50  | 17.05  |
|        | { 14.85 | 14.85  | 14.25  | 14.35  | 14.35                             | 17.50  | 17.50  | 17.75  | 19.25                      | 19.00  | 20.00  | 20.00  |
| 1926   | 16.00   | 15.70  | 15.40  | 14.40  | 17.50                             | 17.70  | 17.75  | 19.50  | 21.75                      | 20.00  | 20.00  | 20.50  |
|        | *18.75  | *20.00 | *21.00 | *21.00 | *21.00                            | *21.50 | *22.00 | †      | *21.00                     | *21.00 | 21.60  | 22.25  |
|        | *20.00  | *21.00 | *21.00 | *21.00 | *21.00                            | *22.00 | *22.00 | †      | *21.75                     | *22.75 | 22.50  | 22.85  |
| 1927   | { 20.50 | 21.50  | 16.75  | 16.75  | 13.75                             | 13.00  | 13.90  | 13.75  | 13.75                      | 14.00  | 15.50  | 16.30  |
|        | 21.50   | 23.00  | 17.65  | 17.40  | 16.85                             | 13.90  | 14.25  | 14.00  | 14.50                      | 15.50  | 16.40  | 16.40  |
|        | *23.00  | *23.50 | *24.75 | *26.50 | *26.50                            | **     | .....  | .....  | .....                      | *15.60 | *17.60 | *17.55 |
|        | *23.50  | *24.75 | *27.00 | *27.00 | *26.50                            | **     | .....  | .....  | .....                      | *17.90 | *18.40 | *18.70 |
| 1928   | { 15.75 | 14.75  | 14.50  | 13.75  | 12.60                             | 13.00  | 14.25  | 14.00  | 14.00                      | 13.75  | 12.65  | 12.60  |
|        | 16.30   | 15.75  | 14.75  | 14.50  | 13.75                             | 14.25  | 14.25  | 14.25  | 14.25                      | 14.25  | 13.75  | 12.75  |
|        | *18.05  | *16.50 | *16.65 | *16.75 | *16.50                            | *16.60 | *17.75 | *17.00 | *17.50                     | *18.00 | *17.45 | *18.00 |
|        | *18.85  | *18.05 | *17.75 | *17.25 | *16.60                            | *17.75 | *18.00 | *17.50 | *18.20                     | *18.65 | *18.50 | *18.25 |
| 1929   | { 12.75 | 12.75  | 12.75  | 12.75  | 12.75                             | 12.75  | 12.75  | 12.00  | 11.00                      | 11.00  | 10.25  | 10.25  |
|        | 12.75   | 12.75  | 12.75  | 12.75  | 12.75                             | 12.75  | 12.75  | 12.75  | 12.00                      | 11.00  | 11.00  | 10.25  |
|        | *18.00  | 17.50  | *17.50 | *17.25 | *17.00                            | *16.00 | *16.00 | *12.60 | *11.65                     | *11.85 | *10.65 | *11.00 |
|        | *18.25  | *18.00 | *17.50 | 17.50  | *16.00                            | *16.00 | *16.00 | *16.00 | *12.50                     | *11.10 | *11.10 | *11.25 |
| 1930   | { 9.50  | 9.00   | 9.00   | 9.00   | Stopped Trading in Imported Seeds |        |        |        |                            |        |        |        |
|        | 10.25   | 9.50   | 9.00   | 9.00   | Stopped Trading in Imported Seeds |        |        |        |                            |        |        |        |
|        | *10.90  | *10.80 | *10.40 | *11.40 | 11.75                             | 11.75  | 12.60  | 13.50  | 14.75                      | 15.00  | 15.35  | 15.35  |
|        | *11.30  | *11.00 | *11.50 | *11.75 | 11.75                             | 12.50  | 13.50  | 14.75  | 15.50                      | 15.50  | 15.35  | 15.35  |
| 1931.. | 15.35   | 14.75  | 14.00  | 14.00  | 14.00                             | 13.75  | 13.50  | 9.00   | 7.50                       | 7.50   | 8.25   | 8.50   |
|        | 15.35   | 15.00  | 15.00  | 14.00  | 14.00                             | 14.00  | 13.75  | 13.50  | 8.50                       | 8.10   | 9.00   | 9.00   |
| 1932.. | 8.60    | 8.75   | 8.75   | 8.75   | 9.00                              | †      | †      | †      | 5.50                       | 5.50   | 5.30   | 5.30   |
|        | 8.75    | 8.75   | 8.75   | 9.00   | 9.00                              | †      | †      | †      | 5.65                       | 5.65   | 5.50   | 5.50   |
| 1933   | 5.40    | 5.10   | 5.10   | 5.80   | 6.20                              | 7.50   | 7.75   | 7.00   | 6.00                       | 6.80   | 7.50   | 7.90   |
|        | 5.40    | 5.40   | 6.00   | 6.20   | 7.50                              | 7.75   | 8.50   | 8.50   | 7.00                       | 7.40   | 7.90   | 8.00   |
| 1934   | ....    | ....   | ....   | 8.25   | 8.25                              | 8.25   | 8.25   | 8.25   | Toledo Market Discontinued |        |        |        |
|        |         |        |        | 8.25   | 8.25                              | 8.25   | 8.25   | 8.25   | on July 11, 1934           |        |        |        |

\*Domestic red clover seed. Other quotations in November and December of 1925 and all of 1926, 1927, 1928, 1929 and 1930 are on imported seed.

†Stopped quoting cash domestic from July 22 to September 24, 1926.

\*\*Stopped quoting cash domestic May 14, 1927.

‡Did not quote prices during June, July and August, 1932.

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**IMPORTED PIGEON GRAINS**  
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**BIRD SEEDS**  
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Front and Arch Streets

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Philadelphia, Pa.

1878-1935

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TOMATO—CUCUMBER—MUSKMELON—WATER-  
MELON—SQUASH

ISBELL SEED CO.  
JACKSON, MICHIGAN

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**Battle Creek Michigan**  
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RED CLOVER.....ROSEN RYE  
MAMMOTH CLOVER·WINTER VETCH  
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OHIO GROWNRed Clover, Alsike  
and Timothy Seeds

*The*  
**ACKERMAN CO.**  
LIMA, OHIO

## ALSIKE CLOVER SEED PRICES AT TOLEDO

## High and Low Cash Prices per Bushel by Months

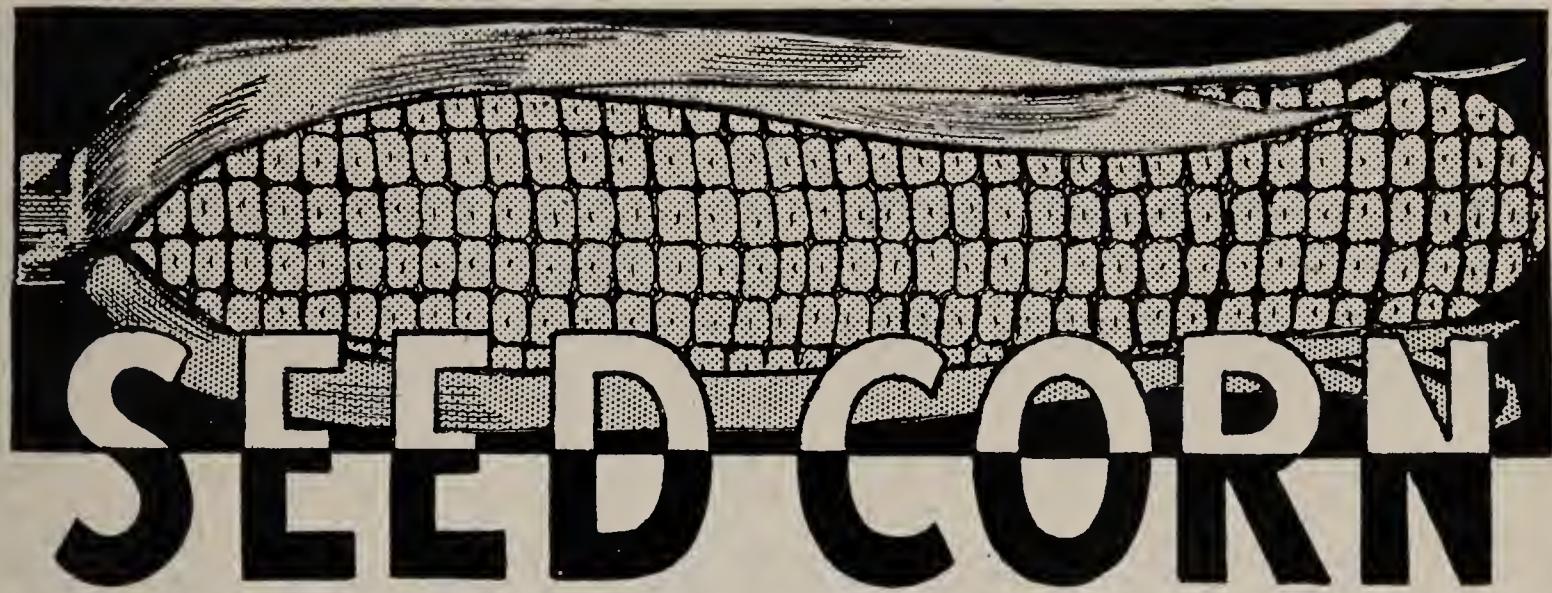
|      | Jan.  | Feb.  | Mar.  | April  | May   | June  | July  | Aug.  | Sept. | Oct.  | Nov.  | Dec.  |
|------|-------|-------|-------|--------|-------|-------|---|-------|-------|-------|-------|-------|
| 1919 | 17.30 | 16.50 | 16.75 | 24.00  | 26.00 | 19.00 | 22.25                                       | 24.25 | 24.30 | 26.50 | 29.50 | 30.05 |
|      | 19.65 | 17.50 | 25.50 | 26.00  | 26.00 | 22.25 | 26.25                                       | 25.75 | 26.50 | 29.75 | 31.25 | 33.00 |
| 1920 | 32.80 | 34.70 | 34.85 | 27.00  | 22.50 | 24.50 | 21.00                                       | 17.50 | 15.25 | 16.50 | 15.60 | 16.25 |
|      | 36.25 | 36.20 | 36.50 | 36.25  | 30.00 | 26.75 | 25.00                                       | 21.50 | 18.00 | 18.50 | 18.00 | 17.75 |
| 1921 | 15.50 | 14.50 | 13.00 | 13.50  | 13.50 | 13.50 | 10.10                                       | 10.05 | 10.45 | 10.50 | 10.25 | 10.70 |
|      | 17.50 | 15.50 | 15.00 | 14.15  | 13.50 | 13.50 | 12.25                                       | 11.35 | 10.75 | 10.75 | 10.90 | 11.40 |
| 1922 | 11.40 | 12.00 | 11.50 | 10.50  | 10.50 | 11.50 | 10.25                                       | 9.50  | 10.00 | 10.05 | 10.45 | 10.65 |
|      | 12.00 | 12.65 | 12.50 | 11.50  | 11.50 | 11.75 | 11.75                                       | 10.25 | 10.25 | 11.00 | 11.50 | 11.00 |
| 1923 | 10.55 | 10.45 | 10.45 | 10.50  | 10.00 | 10.25 | 10.15                                       | 10.15 | 10.40 | 10.00 | 9.25  | 9.30  |
|      | 10.95 | 10.60 | 10.50 | 10.50  | 10.50 | 10.25 | 10.25                                       | 11.15 | 10.75 | 10.50 | 10.00 | 9.45  |
| 1924 | 8.70  | 8.35  | 8.70  | 8.75   | 9.70  | 9.80  | 10.65                                       | 10.00 | 10.00 | 12.15 | 12.25 | 12.60 |
|      | 9.50  | 8.80  | 9.20  | 9.50   | 10.20 | 10.80 | 10.80                                       | 10.80 | 12.25 | 12.75 | 13.30 | 13.25 |
| 1925 | 13.05 | 12.60 | 12.75 | 14.40* | ....  | ....  | ....  | ....  | ....  | ....  | ....  | 15.60 |
|      | 13.60 | 13.60 | 14.25 | 15.15  | ....  | ....  | ....  | ....  | ....  | ....  | ....  | 16.25 |
| 1926 | 16.00 | 16.50 | 17.00 | 17.00  | 17.00 | 15.00 | 14.50                                       | 14.50 | 16.50 | 18.00 | 18.25 | 19.75 |
|      | 16.50 | 17.00 | 17.00 | 17.00  | 17.00 | 17.00 | 15.50                                       | 16.25 | 18.75 | 18.50 | 19.75 | 20.85 |
| 1927 | 21.00 | 22.50 | 22.75 | 23.75  | 24.00 | ....  | ....  | 14.60 | 14.80 | 14.80 | 15.40 | 16.00 |
|      | 22.50 | 22.75 | 23.75 | 24.00  | 24.00 | ....  | ....  | 17.00 | 15.25 | 15.40 | 16.70 | 16.80 |
| 1928 | 16.20 | 15.95 | 15.00 | 15.00  | 15.00 | 15.00 | 16.25                                       | 16.25 | 18.75 | 18.75 | 18.60 | 19.00 |
|      | 16.30 | 16.25 | 15.95 | 15.45  | 15.00 | 16.25 | 16.50                                       | 18.75 | 18.75 | 19.75 | 19.90 | 19.20 |
| 1929 | 19.00 | 19.00 | 19.25 | 20.00  | 20.00 | ....  | 11.00                                       | 10.10 | 10.40 | 10.50 | 10.40 | 10.50 |
|      | 19.00 | 19.25 | 20.00 | 20.00  | 20.00 | ....  | 12.00                                       | 11.75 | 10.95 | 10.90 | 10.50 | 10.75 |
| 1930 | 10.60 | 10.40 | 10.40 | 11.00  | 11.00 | 11.00 | 11.20                                       | 11.80 | 12.50 | 13.65 | 13.65 | 13.75 |
|      | 10.75 | 10.65 | 11.00 | 11.00  | 11.00 | 11.20 | 11.95                                       | 12.50 | 13.75 | 13.75 | 13.75 | 13.75 |
| 1931 | 13.75 | 13.90 | 14.00 | 14.00  | 14.00 | 14.00 | 8.65  | 8.10  | 7.50  | 7.50  | 8.00  | 8.50  |
|      | 13.90 | 14.00 | 14.00 | 14.00  | 14.00 | 14.00 | 14.00                                       | 8.65  | 7.75  | 7.90  | 8.50  | 8.75  |
| 1932 | 8.50  | 8.75  | 8.75  | 8.75   | 8.75  | †     | †   | †     | 5.50  | 5.50  | 5.50  | 5.50  |
|      | 8.75  | 8.75  | 8.75  | 8.75   | 8.75  | †     | †   | †     | 5.75  | 5.85  | 5.85  | 5.90  |
| 1933 | 5.80  | 5.80  | 5.80  | 6.20   | 6.20  | 7.50  | 7.75  | 8.50  | 8.00  | 8.25  | 8.50  | 8.50  |
|      | 5.90  | 5.80  | 6.20  | 6.20   | 7.50  | 7.75  | 8.75  | 8.75  | 8.50  | 8.50  | 8.50  | 8.50  |
| 1934 | 8.50  | 8.50  | 8.50  | 8.50   | 8.50  | 8.50  | Toledo Market Discontinued on July 11, 1934 |       |       |       |       |       |

\*Cash prices not quoted after April 20, 1925.

†Did not quote prices during June, July and August, 1932.

WHOLESALE CASH PRICES OF FIELD SEEDS, 1922-34  
(For best grades, per 100 pounds)Compiled by Hay, Feed & Seed Division, Bureau of Agricultural Economics.  
U. S. Department of Agriculture

| Year | Alfalfa,<br>Kansas<br>City | Red<br>clover,<br>Chicago | Alsike<br>clover,<br>Chicago | Sweet<br>clover,<br>Minne-<br>apolis | Lespe-<br>deza,<br>Louis-<br>ville | Hairy<br>vetch,<br>Balti-<br>more | Red-<br>top,<br>Timothy,<br>Chicago | Kansas<br>City | Kentucky<br>blue-<br>grass,<br>millet,<br>Kansas<br>City | German<br>sorgo,<br>Kansas<br>City | Amber<br>grass,<br>Kansas<br>City | Sudan<br>grass,<br>Kansas<br>City |
|------|----------------------------|---------------------------|------------------------------|--------------------------------------|------------------------------------|-----------------------------------|-------------------------------------|----------------|--|------------------------------------|-----------------------------------|-----------------------------------|
|      |                            |                           |                              |                                      |                                    |                                   |                                     |                |  |                                    |                                   |                                   |
| 1922 | 18.00                      | 23.50                     | 18.20                        | 8.50                                 | 17.10                              | 12.00                             | 7.00                                | 22.65          | 53.50  | 2.15                               | 2.00                              | 4.70                              |
| 1923 | 20.00                      | 20.90                     | 16.50                        | 12.40                                | 19.00                              | 16.80                             | 7.00                                | 18.70          | 25.90  | 3.95                               | 4.25                              | 15.10                             |
| 1924 | 22.30                      | 20.90                     | 15.70                        | 15.30                                | 21.10                              | 10.40                             | 8.00                                | 13.60          | 25.10  | 4.00                               | 1.70                              | 8.20                              |
| 1925 | 22.70                      | 34.00                     | 23.40                        | 12.30                                | 19.50                              | 8.90                              | 6.80                                | 14.40          | 28.00  | 5.00                               | 2.20                              | 5.70                              |
| 1926 | 20.40                      | 33.70                     | 27.60                        | 9.70                                 | 15.20                              | 12.30                             | 7.90                                | 31.25          | 38.00  | 3.10                               | 2.80                              | 4.20                              |
| 1927 | 19.90                      | 42.50                     | 37.30                        | 13.60                                | 8.20                               | 15.20                             | 6.00                                | 25.30          | 20.50  | 3.30                               | 3.30                              | 7.00                              |
| 1928 | 21.80                      | 30.60                     | 27.80                        | 8.50                                 | 18.80                              | 9.70                              | 4.70                                | 13.10          | 19.70  | 2.40                               | 2.00                              | 3.70                              |
| 1929 | 26.00                      | 33.70                     | 34.70                        | 8.50                                 | 20.60                              | 9.30                              | 6.60                                | 14.60          | 31.30  | 3.40                               | 2.10                              | 5.60                              |
| 1930 | 24.85                      | 21.35                     | 19.90                        | 8.00                                 | 14.50                              | 9.00                              | 8.05                                | 16.45          | 20.00  | 3.45                               | 3.45                              | 5.40                              |
| 1931 | 22.55                      | 25.05                     | 23.90                        | 9.20                                 | 14.70                              | 8.45                              | 10.55                               | 24.20          | 34.35  | 3.70                               | 2.80                              | 7.40                              |
| 1932 | 13.65                      | 16.35                     | 15.05                        | 5.50                                 | 8.30                               | 7.50                              | 4.30                                | 8.70           | 13.45  | 1.75                               | 1.15                              | 1.70                              |
| 1933 | 13.60                      | 11.40                     | 11.95                        | 4.50                                 | 7.50                               | 7.00                              | 3.25                                | 5.30           | 8.35   | 1.60                               | 1.15                              | 2.10                              |
| 1934 | 13.00                      | 14.75                     | 16.25                        | 6.50                                 | 5.00                               | 8.75                              | 8.50                                | 8.40           | 13.40  | 3.35                               | 1.60                              | 5.50                              |



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ORANGEBURG, S. C.

## RANGE OF MARCH CLOVER SEED PRICES AT TOLEDO

## Low and High Prices per Bushel by Months

| Crop of   | Aug.  | Sept.      | Oct.  | Nov.  | Dec.  |      | Jan.  | Feb.       | Mar.  |
|-----------|-------|------------|-------|-------|-------|------|-------|------------|-------|
| 1921..... | 11.70 | 11.40      | 12.30 | 11.75 | 12.55 | 1922 | 13.20 | 14.00      | 14.50 |
|           | 13.95 | 13.30      | 12.95 | 12.75 | 13.35 |      | 14.25 | 15.95      | 16.15 |
| 1922..... | 9.05  | 9.85       | 11.35 | 12.85 | 13.35 | 1923 | 13.35 | 12.70      | 12.75 |
|           | 10.30 | 11.70      | 12.80 | 13.50 | 13.90 |      | 13.65 | 13.50      | 13.05 |
| 1923..... | 11.90 | 13.15      | 13.85 | 13.05 | 13.05 | 1924 | 12.80 | 11.35      | 11.50 |
|           | 13.40 | 15.20      | 14.60 | 13.90 | 13.60 |      | 14.05 | 13.05      | 12.35 |
| 1924..... | 13.00 | 13.20      | 17.00 | 17.95 | 19.15 | 1925 | 19.35 | 18.00      | 16.50 |
|           | 13.65 | 18.50      | 18.50 | 19.95 | 20.00 |      | 20.10 | 19.85      | 18.45 |
| 1925..... | 14.45 | 14.45      | 15.05 | 14.75 | 14.65 | 1926 | 14.65 | 14.85      | 14.25 |
|           | 15.35 | 16.05      | 16.00 | 15.50 | 15.20 |      | 16.10 | 15.75      | 15.40 |
| 1926..... | 17.25 | 16.90      | 15.95 | 16.85 | 17.45 | 1927 | 17.70 | 16.60      | 16.65 |
|           | 17.75 | 19.20      | 17.25 | 17.70 | 18.00 |      | 18.50 | 17.85      | 17.65 |
| 1927..... | ..... | 15.85      | 15.95 | 17.60 | 17.80 | 1928 | 18.00 | 16.40      | 16.65 |
|           | ..... | 16.80      | 17.75 | 18.50 | 18.70 |      | 19.00 | 18.00      | 17.75 |
| 1928..... | ..... | .....      | ..... | 17.95 | 18.35 | 1929 | 18.20 | 17.55      | 17.50 |
|           | ..... | .....      | ..... | 19.00 | 18.75 |      | 18.60 | 18.10      | 17.50 |
| 1929..... | ..... | .....      | 11.60 | 11.15 | 11.50 | 1930 | 11.15 | 10.80      | 10.45 |
|           | ..... | .....      | 12.25 | 11.60 | 11.75 |      | 11.50 | 11.15      | 11.70 |
| 1930..... | 15.75 | 15.75      | 15.75 | 15.55 | 15.40 | 1931 | 15.15 | 14.75      | 14.00 |
|           | 16.25 | 16.25      | 16.25 | 15.75 | 15.50 |      | 15.40 | 15.15      | 14.75 |
| 1931..... | ..... | .....      | 8.50  | 8.75  | 8.90  | 1932 | 8.90  | 8.75       | 8.75  |
|           | ..... | .....      | 8.75  | 9.50  | 9.00  |      | 9.00  | 8.90       | 8.75  |
| 1932..... | ..... | Not quoted | ..... | ..... | ..... | 1933 | ..... | Not quoted | ..... |
|           | ..... | .....      | 7.25  | 7.75  | 8.15  |      | 8.25  | 8.25       | 8.25  |
| 1933..... | ..... | .....      | 7.75  | 8.15  | 8.25  |      | 8.25  | 8.25       | 8.25  |

FIELD SEED PRODUCTION IN UNITED STATES  
FOR PAST FIVE YEARS

Compiled by Hay, Feed & Seed Division, Bureau of Agricultural Economics.  
U. S. Department of Agriculture

| Kind            | Lbs. or | Bus.       | 1930       | 1931       | 1932       | 1933       | 1934 |
|-----------------|---------|------------|------------|------------|------------|------------|------|
| Alfalfa*        | Lbs.    | 70,000,000 | 50,300,000 | 32,100,000 | 55,400,000 | 40,000,000 |      |
| Clover, alsike* | Lbs.    | 26,400,000 | 21,000,000 | 26,200,000 | 25,000,000 | 13,000,000 |      |
| Clover, red*    | Lbs.    | 63,000,000 | 46,100,000 | 75,000,000 | 59,000,000 | 36,000,000 |      |
| Clover, sweet*  | Lbs.    | 50,900,000 | 50,300,000 | 41,600,000 | 41,400,000 | 33,000,000 |      |
| Clover, white   | Lbs.    | 1,200,000  | 1,000,000  | 775,000    | 900,000    | 800,000    |      |
| Clover, crimson | Lbs.    | 500,000    | 1,000,000  | 1,200,000  | 1,500,000  | 1,000,000  |      |
| Bluegrass, Ky.  | Bus.    | 775,000    | 3,500,000  | 1,400,000  | 1,300,000  | 325,000    |      |
| Meadow Fescue** | Lbs.    | 1,000,000  | 900,000    | 600,000    | 550,000    | 500,000    |      |
| Orchard Grass   | Bus.    | 205,000    | 410,000    | 140,000    | 260,000    | 165,000    |      |
| Redtop**        | Lbs.    | 7,500,000  | 18,000,000 | 16,000,000 | 7,500,000  | 6,000,000  |      |
| Sudan Grass     | Lbs.    | 23,000,000 | 50,000,000 | 12,000,000 | 20,000,000 | 13,000,000 |      |
| Timothy*        | Lbs.    | 78,300,000 | 92,200,000 | 63,300,000 | 40,900,000 | 8,500,000  |      |

\*Figures for these seeds subject to revision.

\*\*Recleaned.

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## MONTHLY CASH PRICES OF TIMOTHY SEED

The following table exhibits the monthly range of prices, per 100 lbs., for cash Timothy Seed in the Chicago market during the past 21 years:

|           | Jan.           | Feb.           | March          | April          | May            | June           | July           | Aug.           | Sept.          | Oct.           | Nov.           | Dec.           |
|-----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1914..... | 5.40<br>5.55   | 5.30<br>5.50   | 5.00<br>5.50   | 5.00<br>5.40   | 5.00<br>5.50   | 5.00<br>5.75   | 5.50<br>6.75   | 5.80<br>6.50   | 5.50<br>6.50   | 5.40<br>5.60   | 5.30<br>5.90   | 5.90<br>7.85   |
| 1915..... | 7.75<br>8.00   | 7.30<br>7.75   | 6.65<br>7.40   | 6.90<br>7.25   | 6.50<br>7.25   | 6.75<br>7.50   | 6.00<br>7.50   | 6.40<br>10.00  | 8.00<br>9.25   | 7.75<br>8.50   | 8.00<br>8.50   | 8.00<br>9.00   |
| 1916..... | 8.35<br>8.80   | 8.40<br>8.80   | 8.50<br>9.00   | 8.50<br>8.50   | 8.50<br>9.25   | 8.75<br>9.25   | 8.25<br>8.75   | 5.25<br>8.50   | 5.00<br>5.25   | 5.00<br>5.35   | 5.25<br>5.75   | 5.45<br>5.75   |
| 1917..... | 5.30<br>5.75   | 5.40<br>5.50   | 5.75<br>5.90   | 6.00<br>7.75   | 6.75<br>8.40   | 7.25<br>8.00   | 7.50<br>8.50   | 7.60<br>8.00   | 6.50<br>8.25   | 6.75<br>8.25   | 7.00<br>8.50   | 7.00<br>7.50   |
| 1918..... | 7.15<br>8.00   | 7.25<br>7.50   | 7.00<br>7.50   | 7.00<br>7.75   | 7.15<br>7.75   | 7.00<br>8.50   | 8.50<br>9.00   | 8.95<br>10.00  | 9.85<br>11.00  | 10.50<br>12.00 | 10.00<br>12.50 | 11.00<br>12.15 |
| 1919..... | 11.40<br>11.75 | 10.00<br>11.25 | 11.00<br>11.50 | 10.75<br>13.50 | 13.00<br>14.00 | 12.60<br>13.00 | 12.65<br>13.25 | 12.50<br>12.70 | 12.00<br>12.75 | 12.00<br>12.75 | 12.10<br>12.80 | 12.00<br>12.50 |
| 1920..... | 13.50<br>15.50 | 13.75<br>15.40 | 13.00<br>14.65 | 12.00<br>13.50 | 11.50<br>12.75 | 11.50<br>12.75 | 12.50<br>12.75 | 10.00<br>11.40 | 9.50<br>9.75   | 5.00<br>7.25   | 5.00<br>6.75   | 5.50<br>7.00   |
| 1921..... | 5.50<br>6.75   | 4.50<br>6.25   | 5.00<br>6.75   | 6.00<br>7.65   | 7.00<br>7.85   | 7.00<br>7.30   | 6.25<br>7.50   | 5.90<br>6.75   | 5.50<br>6.00   | 5.75<br>6.75   | 6.00<br>7.50   | 7.00<br>7.25   |
| 1922..... | 7.00<br>8.00   | 7.25<br>7.75   | 7.00<br>7.75   | 7.00<br>7.25   | 7.00<br>7.00   | 6.00<br>6.25   | 5.00<br>6.25   | 6.00<br>6.25   | 6.00<br>7.00   | 6.50<br>7.50   | 7.00<br>7.50   | 7.00<br>7.75   |
| 1923..... | 7.25<br>7.50   | 7.25<br>7.50   | 7.25<br>7.50   | 7.25<br>7.25   | 7.00<br>7.75   | 7.75<br>7.75   | ....<br>....   | ....<br>....   | 7.60<br>8.00   | 8.00<br>9.50   | 8.00<br>9.00   | 8.00<br>9.00   |
| 1924..... | 8.50<br>10.25  | 8.75<br>10.25  | 8.50<br>10.00  | 8.75<br>9.00   | 8.25<br>8.75   | 8.75<br>8.75   | 8.75<br>8.75   | 6.00<br>7.50   | 4.75<br>6.65   | 4.75<br>6.00   | 4.85<br>6.35   | 5.50<br>6.65   |
| 1925..... | 5.75<br>6.40   | 5.25<br>6.15   | 5.25<br>5.90   | 5.25<br>6.30   | 5.50<br>6.40   | 6.35<br>7.70   | 6.85<br>7.35   | 6.75<br>7.75   | 6.50<br>7.75   | 6.75<br>7.75   | 6.50<br>7.75   | 6.50<br>8.00   |
| 1926..... | 6.50<br>8.10   | 6.40<br>7.65   | 6.05<br>7.20   | 6.00<br>7.00   | 6.00<br>7.00   | 6.00<br>7.00   | 6.00<br>7.50   | 5.00<br>7.50   | 5.00<br>6.10   | 5.00<br>5.75   | 4.75<br>5.15   | 5.00<br>5.25   |
| 1927..... | 4.85<br>5.75   | 4.50<br>5.25   | 4.50<br>4.75   | 4.25<br>4.75   | 4.00<br>4.25   | 4.00<br>5.50   | 4.00<br>5.50   | 3.50<br>4.75   | 2.25<br>3.75   | 2.25<br>3.25   | 3.25<br>4.50   | 3.25<br>4.50   |
| 1928..... | 3.25<br>4.25   | 3.00<br>4.25   | 3.00<br>3.75   | 3.00<br>4.25   | 3.30<br>4.25   | 3.30<br>4.45   | 3.35<br>4.45   | 3.35<br>4.50   | 3.50<br>5.60   | 4.75<br>6.00   | 4.50<br>6.00   | 5.00<br>6.25   |
| 1929..... | 5.00<br>6.25   | 5.00<br>6.25   | 5.00<br>6.25   | 5.00<br>6.00   | 5.00<br>6.00   | 5.00<br>6.00   | 4.30<br>6.00   | 3.85<br>5.25   | 4.00<br>5.50   | 4.00<br>5.50   | 5.25<br>6.00   | 5.50<br>6.00   |
| 1930..... | 5.50<br>6.00   | 4.50<br>6.00   | 3.50<br>6.00   | 4.50<br>7.50   | 6.50<br>8.50   | 6.50<br>8.00   | 5.25<br>7.00   | 5.00<br>7.00   | 5.50<br>8.50   | 6.50<br>8.75   | 8.00<br>9.25   | 8.00<br>9.00   |
| 1931..... | 8.00<br>9.00   | 8.75<br>9.75   | 8.25<br>9.75   | 8.00<br>8.75   | 7.50<br>8.75   | 5.50<br>7.50   | 3.50<br>5.50   | 3.00<br>4.00   | 3.00<br>4.00   | 3.00<br>4.00   | 3.00<br>4.00   | 3.75<br>4.25   |
| 1932..... | 3.50<br>4.25   | 3.15<br>3.75   | 3.00<br>3.25   | 2.75<br>3.25   | 2.90<br>3.00   | 2.50<br>3.00   | 2.25<br>2.50   | 2.15<br>2.75   | 2.25<br>2.50   | 2.25<br>2.50   | 2.25<br>2.50   | 2.10<br>2.50   |
| 1933..... | 2.10<br>2.35   | 2.10<br>2.35   | 2.00<br>2.35   | 2.00<br>2.60   | 2.25<br>2.60   | 2.25<br>3.90   | 3.00<br>4.25   | 4.25<br>5.00   | 4.50<br>6.25   | 5.75<br>6.25   | 5.50<br>6.00   | 5.50<br>6.00   |
| 1934..... | 6.50<br>7.00   | 6.75<br>7.50   | 7.25<br>7.50   | 6.00<br>6.90   | 6.00<br>7.75   | 7.50<br>9.50   | 9.25<br>11.50  | 11.00<br>18.00 | 16.50<br>19.00 | 16.50<br>17.50 | 16.50<br>17.75 | ...            |

## NUMBER OF PLANTS TO AN ACRE

SET AT REGULAR DISTANCES APART

| Distance apart   | No. Plants | Distance apart   | No. Plants | Distance apart   | No. Plants |
|------------------|------------|------------------|------------|------------------|------------|
| 3 in. by 4 in.   | 522,720    | 3 ft. by 3 ft.   | 4,840      | 5 ft. by 5 ft.   | 1,742      |
| 4 in. by 4 in.   | 392,040    | 3½ ft. by 3½ ft. | 3,555      | 5½ ft. by 5½ ft. | 1,440      |
| 6 in. by 6 in.   | 174,240    | 4 ft. by 1 ft.   | 10,890     | 6 ft. by 6 ft.   | 1,200      |
| 1 ft. by 1 ft.   | 43,560     | 4 ft. by 2 ft.   | 3,630      | 6½ ft. by 6½ ft. | 1,031      |
| 1½ ft. by 1½ ft. | 19,360     | 4 ft. by 4 ft.   | 2,722      | 7 ft. by 7 ft.   | 888        |
| 2 ft. by 1 ft.   | 21,780     | 4½ ft. by 4½ ft. | 2,150      | 8 ft. by 8 ft.   | 680        |
| 2 ft. by 2 ft.   | 10,890     | 5 ft. by 1 ft.   | 8,712      | 9 ft. by 9 ft.   | 537        |
| 2½ ft. by 2½ ft. | 6,960      | 5 ft. by 2 ft.   | 4,356      | 10 ft. by 10 ft. | 435        |
| 3 ft. by 1 ft.   | 14,520     | 5 ft. by 3 ft.   | 3,904      | 11 ft. by 11 ft. | 360        |
| 3 ft. by 2 ft.   | 7,260      | 5 ft. by 4 ft.   | 2,178      | 12 ft. by 12 ft. | 302        |

RULE—Multiply the distance in feet between the rows by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant or hill; which divided into the number of square feet (43,560), will give the number of plants to the acre.



## Cosmos, Early Klondyke ORANGE FLARE

The Grand Champion Gold Medal Winner  
1935 All-America Competition

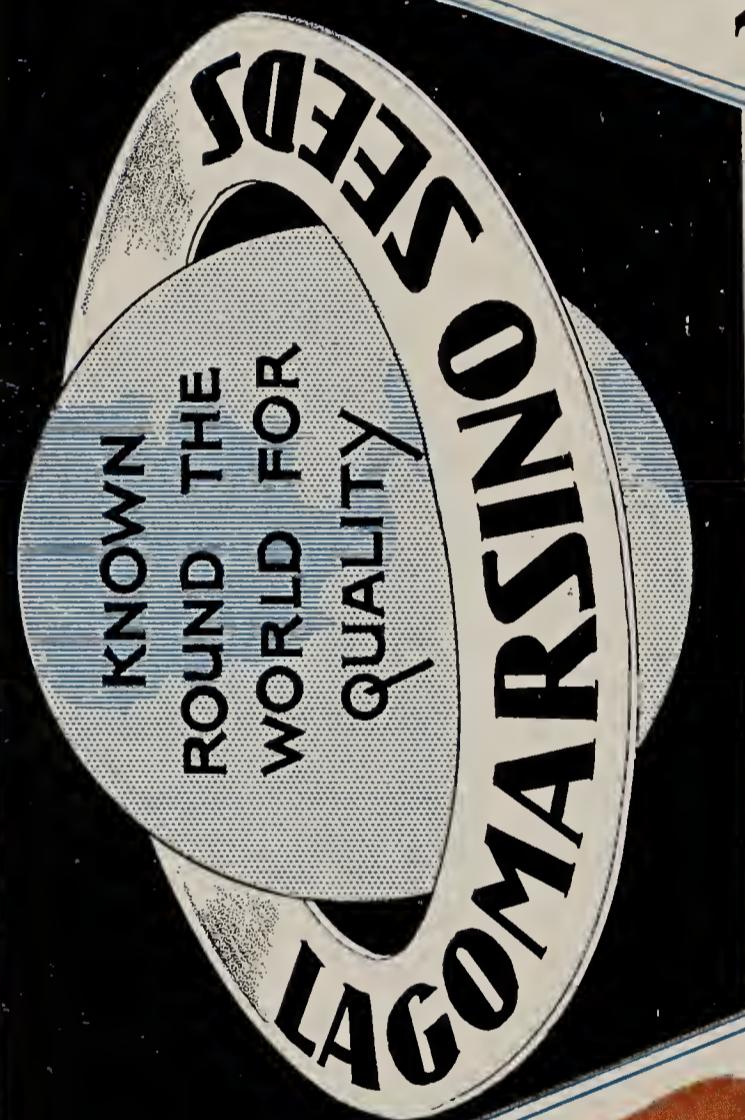
WE are generally conceded leaders in the field of Gleam Nasturtiums, Asters and Zinnias. This exceptional Cosmos novelty is an indication of the successful work we are doing on a wide range of additional flowers in our fifty acres of experimental grounds.

**BODGER SEEDS, LTD.**

El Monte, Los Angeles County, California  
CALIFORNIA'S CHOICEST FLOWER SEEDS SINCE 1890



## New Deal



Grown in one of the most famous seed producing sections of the world. Here soil and climatic conditions, together with other environmental factors are particularly ideal for the production of seeds of the highest quality and viability. Seed crops produced only from carefully bred and selected stocks developed by means of the very latest scientific plant breeding methods. Specializing in Onion, Carrot, Beet, Parsnip, Radish, Lettuce, Peas, Celery, Swiss Chard, Endive, Parsley, Salsify, Beans and Lima Beans.



## Rust- Proof Snapdragons

Destined to revolutionize all old commercial rust-susceptible varieties. Our New Deal Strains are the result of an extensive breeding program utilizing scientifically refined and accurate plant breeding methods. Only comprehensive work of this type has made possible the development of the separate colors we have introduced in the new rust-proof strains. Beautiful separate colors and an excellent mixture now available.

**SACRAMENTO  
CALIFORNIA**  
Cable Address, "LAGO"

**F. LAGOMARSINO & SONS**

## PRICES OCTOBER CLOVER SEED AT TOLEDO

## Low and High Prices per Bushel by Months

| Crop of   | March              | April | May   | June  | July  | Aug.  | Sept.  | Oct.  |
|-----------|--------------------|-------|-------|-------|-------|-------|--|-------|
| 1918..... | 19.70              | 18.00 | 18.00 | 12.80 | 13.10 | 16.30 | 19.05  | 22.55 |
|           | 20.85              | 20.20 | 18.40 | 14.20 | 16.35 | 19.50 | 23.80  | 24.00 |
| 1919..... | 17.00              | 17.15 | 19.75 | 21.50 | 26.20 | 29.50 | 28.15  | 30.00 |
|           | 19.30              | 19.75 | 22.00 | 25.50 | 32.50 | 32.35 | 30.60  | 31.80 |
| 1920..... | 23.00              | 22.00 | 23.40 | 23.50 | 20.15 | 18.20 | 14.60  | 12.90 |
|           | 25.25              | 24.25 | 24.25 | 26.25 | 25.95 | 21.75 | 18.55  | 15.60 |
| 1921..... | 9.00               | 8.85  | 9.50  | 10.35 | 11.35 | 11.65 | 11.40  | 12.30 |
|           | 9.95               | 9.40  | 10.50 | 12.25 | 14.00 | 14.05 | 12.95  | 13.65 |
| 1922..... | 11.00              | 11.10 | 11.05 | 10.80 | 10.67 | 8.97  | 9.70   | 11.05 |
|           | 12.35              | 12.00 | 11.60 | 11.35 | 11.40 | 10.27 | 11.50  | 12.70 |
| 1923..... | 11.20              | 11.45 | 11.70 | 11.00 | 10.90 | 11.85 | 13.10  | 14.30 |
|           | 11.72              | 11.95 | 12.30 | 11.97 | 11.55 | 13.35 | 15.65  | 15.60 |
| 1924..... | 11.92              | 11.75 | 11.85 | 12.00 | 12.35 | 12.50 | 13.90  | 17.30 |
|           | 12.65              | 12.40 | 12.40 | 12.65 | 13.60 | 14.30 | 19.00  | 19.00 |
| 1925..... | 13.00              | 13.00 | 13.05 | 14.50 | 14.55 | 14.75 | 14.75  | 16.75 |
|           | 14.00              | 14.50 | 14.25 | 16.10 | 16.00 | 16.00 | 17.25  | 18.25 |
| 1926..... | 15.65              | 15.65 | 16.50 | 19.25 | 19.65 | 19.95 | 20.75  | 21.00 |
|           | 16.50              | 16.70 | 19.50 | 20.75 | 21.25 | 22.10 | 22.50  | 22.75 |
| 1927..... | 16.50              | 16.45 | 16.00 | 16.50 | 16.60 | 17.00 | 15.00  | 15.70 |
|           | 17.50              | 17.00 | 16.85 | 16.95 | 17.50 | 18.00 | 17.25  | 17.90 |
| 1928..... | 15.00              | 16.25 | 17.30 | 17.75 | 18.65 | 17.30 | 18.00  | 18.30 |
|           | 16.15              | 17.75 | 17.75 | 18.75 | 19.10 | 18.65 | 18.60  | 18.65 |
| 1929..... | ....               | ....  | ....  | ....  | ....  | 12.95 | 11.75  | 11.10 |
|           | ....               | ....  | ....  | ....  | ....  | 14.75 | 12.75  | 11.85 |
| 1930..... | 11.35              | 12.00 | 12.60 | 12.60 | 13.60 | 14.35 | 14.75  | 15.00 |
|           | 12.20              | 12.60 | 12.60 | 13.25 | 14.35 | 15.75 | 15.50  | 15.50 |
| 1931..... | 12.25              | 14.25 | 14.25 | 13.75 | 13.50 | 9.00  | 7.50   | 7.50  |
|           | 14.00              | 14.25 | 14.25 | 14.25 | 13.75 | 13.75 | 8.50   | 8.10  |
| 1932..... | ....               | ....  | ....  | ....  | ....  | ....  | 5.50   | 5.60  |
|           | ....               | ....  | ....  | ....  | ....  | ....  | 5.65   | 5.65  |
| 1933..... | ....               | ....  | 6.50  | 7.50  | 8.00  | 7.25  | 6.15   | 6.90  |
|           | ....               | ....  | 7.50  | 8.00  | 8.75  | 9.00  | 7.25   | 7.40  |
| 1934..... | No Oct. Quotations |       |       |       |       |       | Toledo Market Discontinued<br>on July 11, 1934 |       |

# ALSIKE

# **RED CLOVER SWEET CLOVER**

# ALFALFA, CANADIAN VARIEGATED CANADIAN BLUE GRASS

**SAMPLES ON REQUEST—CARLOTS**

# **“CANADA’S GREATEST SEED HOUSE”**

# TORONTO

### *Limited*

CANADA

**FORAGE PLANT SEEDS PERMITTED ENTRY UNDER  
FEDERAL SEED ACT**

By Fiscal Years Ending June 30, 1928-1934, and by Countries Exporting  
(Reported by the U. S. Division of Seed Investigations, Washington, D. C.)

**ALFALFA**

| COUNTRY           | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Argentina .....   | .....          | 317,900        | 302,100        | 44,500         | .....          | (1)2,600       | .....          |
| Canada .....      | 728,300        | 154,000        | 2,300          | 177,900        | 352,700        | 2,600          | 24,500         |
| France .....      | .....          | .....          | 32,600         | 11,000         | .....          | (1)3,000       | .....          |
| Germany .....     | .....          | (2)198,500     | .....          | .....          | .....          | .....          | .....          |
| Latvia .....      | (3)53,900      | .....          | .....          | .....          | .....          | .....          | .....          |
| Other countries.. | 100            | (4)476,000     | .....          | .....          | .....          | (1)33,000      | (1)22,000      |

**ALSIKE CLOVER**

|                   | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Canada .....      | 7,608,600      | 4,787,000      | 7,220,300      | 93,800         | .....          | .....          | .....          |
| Germany .....     | .....          | 10,900         | .....          | .....          | .....          | .....          | .....          |
| Other countries.. | .....          | .....          | .....          | .....          | .....          | .....          | .....          |

**WINTER RAPE SEED**

|                   | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| China .....       | 30,100         | .....          | .....          | .....          | .....          | .....          | .....          |
| France .....      | .....          | 460,000        | 175,900        | .....          | 21,800         | 33,100         | .....          |
| Germany .....     | 83,700         | 216,600        | 138,300        | (5)489,000     | 214,700        | 120,400        | 33,700         |
| Great Britain.... | 3,700          | 6,900          | 6,300          | 6,700          | 2,100          | 9,600          | 2,600          |
| Hungary .....     | .....          | 223,100        | 79,700         | 69,600         | 59,600         | .....          | 58,600         |
| Japan. ....       | 1,703,300      | 1,454,400      | 4,397,800      | 2,042,000      | 961,300        | 4,149,700      | 4,507,200      |
| The Netherlands.. | 4,616,700      | 4,621,300      | 1,709,700      | 2,478,800      | 2,410,100      | 831,900        | 631,100        |
| Poland .....      | .....          | .....          | 162,200        | 32,800         | 92,200         | 29,600         | 32,700         |
| Other countries.. | 300            | .....          | 10,900         | .....          | 100            | 100            | 15,300         |

**HAIRY VETCH**

|                   | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Canada .....      | 6,100          | 19,200         | .....          | 6,500          | 14,300         | 7,500          | 1,200          |
| Czechoslovakia .. | 42,900         | 240,100        | 507,600        | 64,500         | 228,500        | 548,000        | 225,300        |
| Denmark .....     | 52,300         | .....          | .....          | .....          | 78,200         | 5,400          | 10,900         |
| Germany .....     | 1,351,200      | (6)1,801,200   | (7)713,400     | (8)543,100     | (9)548,500     | (10)540,500    | (11)207,300    |
| Great Britain.... | .....          | 800            | .....          | .....          | .....          | .....          | (12)55,100     |
| Hungary .....     | 945,700        | 1,226,100      | 1,074,300      | 540,000        | 1,043,900      | 647,100        | 1,975,500      |
| Latvia .....      | 1,256,900      | 474,700        | 165,000        | 427,000        | 248,900        | (13)1,041,700  | (14)363,000    |
| Lithuania .....   | 110,200        | .....          | .....          | .....          | 32,800         | 41,600         | .....          |
| Poland .....      | 86,000         | 142,800        | .....          | .....          | 167,700        | 61,800         | 281,100        |
| Sweden .....      | 43,900         | 159,000        | 22,800         | 47,100         | 2,600          | .....          | 22,000         |
| Other countries.. | .....          | .....          | .....          | .....          | .....          | .....          | .....          |

**PERENNIAL RYEGRASS**

|                   | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Denmark .....     | 20,000         | 21,500         | 6,000          | 500            | 2,300          | 7,100          | 5,600          |
| Great Britain.... | 97,600         | 127,300        | 202,800        | (16)295,400    | (17)219,200    | (18)248,700    | (19)141,800    |
| Ireland .....     | 624,000        | 886,900        | 696,200        | 523,500        | 373,200        | 206,100        | 302,200        |
| New Zealand....   | 340,200        | 138,000        | 11,600         | 3,200          | 47,900         | 300            | 75,300         |
| Other countries.. | 1,000          | 6,200          | 20,500         | 900            | (20)2,900      | 600            | (21)6,700      |

**CRIMSON CLOVER**

|                    | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Czechoslovakia ... | 21,500         | 132,400        | 162,500        | .....          | .....          | .....          | .....          |
| France .....       | 725,600        | 2,632,700      | 581,500        | 1,242,200      | 54,600         | 5,500          | .....          |
| Germany .....      | 107,600        | 157,100        | (22)681,800    | (23)231,800    | (24)285,900    | .....          | (23)21,800     |
| Great Britain....  | 19,500         | .....          | .....          | 85,700         | 20,100         | .....          | .....          |
| Hungary .....      | 471,900        | 472,500        | 1,673,000      | 1,519,200      | 1,470,600      | 673,300        | 1,921,200      |
| Poland .....       | .....          | .....          | .....          | .....          | .....          | 6,200          | 34,000         |

(1) American goods returned. (2) 197,500 lbs. of Turkestan origin; 1,000 lbs. American goods returned. (3) Of Turkestan origin. (4) 465,200 lbs. of Turkestan origin. (5) 11,000 lbs. of Hungarian origin. (6) 126,500 lbs. of Latvian origin. (7) 271,500 lbs. of Czechoslovakian origin; 187,300 lbs. of Latvian origin; 87,600 lbs. of Hungarian origin. (8) 356,800 lbs. of Hungarian origin; 46,800 lbs. of Czechoslovakian origin. (9) 60,500 lbs. of Hungarian origin; 43,800 lbs. of Latvian origin. (10) 142,600 lbs. of Lithuanian origin; 28,600 lbs. of Latvian origin; 10,900 lbs. of Czechoslovakian origin. (11) 71,500 lbs. of Hungarian origin; 33,000 lbs. of Czechoslovakian origin; 17,600 lbs. of Lithuanian origin. (12) Of German origin. (13) 76,500 lbs. of Lithuanian origin. (14) 77,000 lbs. of Lithuanian origin. (16) 51,600 lbs. of Irish origin. (17) 155,100 lbs. of Irish origin. (18) 214,700 lbs. of Irish origin. (19) 133,800 lbs. of Irish origin. (20) 2,200 lbs. of Australian origin; 700 lbs. from Holland. (21) Of Irish origin. (22) 589,900 lbs. of Hungarian origin; 36,100 lbs. of Czechoslovakian origin. (23) Of Hungarian origin. (24) 187,900 lbs. of Hungarian origin.

# FORAGE PLANT SEEDS PERMITTED ENTRY UNDER FEDERAL SEED ACT

*(Continued from preceding page)*

## ORCHARD GRASS

| COUNTRY           | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Denmark .....     | 169,500        | 1,964,000      | 123,400        | 339,700        | .....          | 19,000         | 5,000          |
| Germany .....     | 3,000          | 376,100        | 191,700        | 2,200          | 1,100          | .....          | .....          |
| The Netherlands.. | .....          | 36,900         | 300            | .....          | .....          | .....          | .....          |
| Other countries.. | .....          | 100            | 3,000          | 100            | .....          | 100            | 100            |

## RED CLOVER

|                      | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Canada .....         | 3,300          | 183,700        | 300            | 100            | .....          | .....          | .....          |
| Czechoslovakia ...   | (1) 43,600     | 185,700        | 53,800         | 44,100         | .....          | .....          | .....          |
| France .....         | 462,300        | 3,623,000      | 471,800        | 2,630,800      | .....          | .....          | .....          |
| Germany .....        | (2) 656,700    | (3) 465,200    | (4) 358,000    | .....          | .....          | .....          | .....          |
| Great Britain....    | .....          | (5) 901,800    | 89,600         | 11,200         | (6) 30,800     | .....          | .....          |
| The Netherlands..    | 200,000        | 109,300        | 44,100         | .....          | .....          | .....          | .....          |
| Poland .....         | 1,872,300      | 1,524,300      | 953,000        | 119,100        | .....          | .....          | .....          |
| Other countries..(8) | 1,402,600      | (9) 554,000    | (8) 183,700    | 100            | (6) 100        | .....          | (6) 11,000     |

## CANADA BLUEGRASS

|              | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Canada ..... | 1,101,900      | 1,227,800      | 608,000        | 985,100        | 366,200        | 191,100        | 128,100        |

## SPRING VETCH

|                   | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds       | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds                 |
|-------------------|----------------|----------------|----------------|----------------------|----------------|----------------|--------------------------------|
| Canada .....      | .....          | 600            | .....          | 500                  | .....          | 100            | .....                          |
| Germany .....     | 187,100        | .....          | 358,100        | 286,700              | .....          | 95,500         | (10) 30,600                    |
| Great Britain.... | 17,500         | .....          | .....          | .....                | .....          | .....          | .....                          |
| Latvia .....      | 19,800         | .....          | 110,200        | 33,000               | .....          | .....          | .....                          |
| The Netherlands.. | 63,000         | .....          | 11,000         | 55,100               | .....          | .....          | .....                          |
| Poland .....      | 220,300        | .....          | 43,700         | .....                | .....          | .....          | 87,800                         |
| Other countries.. | 54,800         | 100            | (11) 297,900   | 329,500 (12) 201,600 | .....          | .....          | (13) 599,900<br>(from Belgium) |

## ITALIAN RYEGRASS

|                   | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Argentina .....   | .....          | .....          | 44,800         | .....          | .....          | .....          | .....          |
| Denmark .....     | 72,000         | 42,500         | 73,100         | 39,800         | 18,200         | 14,000         | 6,000          |
| France .....      | 21,800         | .....          | .....          | .....          | .....          | .....          | .....          |
| Great Britain.... | 5,400          | 37,400         | 9,000          | (14) 67,600    | 10,400         | (15) 13,400    | (16) 4,500     |
| Ireland .....     | 167,400        | 102,800        | 94,600         | 90,100         | 45,400         | 7,200          | 4,500          |
| The Netherlands.. | 1,900          | 600            | 3,900          | 2,300          | 500            | 200            | 200            |
| New Zealand....   | 187,200        | 115,300        | 13,600         | .....          | 600            | 6,500          | 11,200         |
| Other countries.. | 200            | (17) 1,400     | (18) 4,900     | 600            | .....          | (19) 1,000     | .....          |

## WHITE CLOVER

|                    | 1928<br>Pounds         | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds | 1934<br>Pounds |
|--------------------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Czechoslovakia ... | 24,400                 | 30,800         | 30,900         | .....          | (20) 30,600    | 36,500         | .....          |
| Denmark .....      | .....                  | 26,400         | .....          | .....          | .....          | 7,900          | .....          |
| France .....       | 400                    | .....          | .....          | .....          | .....          | .....          | .....          |
| Germany .....      | 629,400 (21) 1,310,200 | (22) 1,261,900 | 378,600        | (20) 494,200   | (20) 696,700   | (23) 483,500   | .....          |
| Great Britain....  | (20) 84,000            | 115,500        | 25,200         | 31,500         | (20) 23,900    | (20) 17,300    | (24) 16,700    |
| The Netherlands..  | .....                  | 1,600          | 18,400         | .....          | .....          | 40,700         | .....          |
| New Zealand....    | 15,400                 | .....          | 200            | 6,800          | 6,500          | .....          | .....          |
| Poland .....       | 977,000                | 924,200        | 941,600        | 350,500        | 335,100        | 1,077,100      | 448,800        |
| Other countries..  | 47,800                 | 800            | .....          | 300            | 2,200          | 66,700         | 13,200         |

## ALL OTHER FORAGE CROP SEEDS

|                   | 1928<br>Pounds | 1929<br>Pounds | 1930<br>Pounds | 1931<br>Pounds | 1932<br>Pounds | 1933<br>Pounds     | 1934<br>Pounds |
|-------------------|----------------|----------------|----------------|----------------|----------------|--------------------|----------------|
| Canada .....      | (25) 94,600    | 368,900        | 8,500          | 4,300          | 200            | 1,600              | 40,300         |
| Denmark .....     | 100            | 700            | 2,000          | .....          | 200            | 100                | .....          |
| Germany .....     | .....          | 2,500          | (26) 15,100    | 1,400          | 16,300         | 100                | .....          |
| Other countries.. | 200            | 2,500          | 52,400         | 14,900         | 2,900          | 1,700 (28) 281,100 | .....          |

(1) 10,900 lbs. of Polish origin. (2) Of Polish, Hungarian and Roumanian origin. (3) 222,000 lbs. of European Russian origin; 226,600 lbs. of Polish origin; 14,400 lbs. of Roumanian origin; 2,200 lbs. of French origin. (4) 300,800 lbs. of Polish origin. (5) 43,900 lbs. of European Russian origin; 51,200 lbs. of American goods returned. (6) American goods returned. (8) Of European Russian origin. (9) 65,100 lbs. from Hungary; 488,900 lbs. of European Russian origin. (10) 21,800 lbs. of European Russian origin. (11) 250,400 lbs. from Estonia (of European Russian origin); 43,000 lbs. from Hungary; 4,400 lbs. from Sweden; 100 lbs. from Australia. (12) 146,500 lbs. from Belgium; 55,000 lbs. from European Russia; 100 lbs. from Ireland. (13) 252,100 lbs. from Belgium; 343,300 lbs. from Hungary; 4,500 lbs. from Sweden. (14) 4,400 lbs. of Irish origin. (15) 13,200 lbs. of Irish origin. (16) Of Irish origin. (17) 1,000 lbs. of Dutch origin. (18) 4,500 lbs. from Germany (of Irish origin). (19) Of Danish origin. (20) Partly of Polish origin. (21) 111,700 lbs. of Polish origin; 12,000 lbs. of Czechoslovakian origin. (22) 26,100 lbs. of Polish origin; 11,000 lbs. of Czechoslovakian origin. (23) 230,300 lbs. of Polish origin; 2,300 lbs. of Dutch origin. (24) 6,500 lbs. of Polish origin; 4,500 lbs. of Hungarian origin. (25) 21,400 lbs. American goods returned (foxtail millet seed). (26) Of Polish origin. (28) Of this, 269,700 lbs. were Hungarian vetch seed.

# Tariff Rates Now in Effect

Approved by U. S. Congress, June 17, 1930

*The following paragraphs from the Tariff Act of 1930 pertain to Seeds, Bulbs and Nursery Stock*

**Par. 722.** **Barley**, hulled or unhulled, 20 cents per bushel of forty-eight pounds; barley malt, 40 cents per one hundred pounds; pearl barley, patent barley and barley flour, 2 cents per pound.

**Par. 723.** **Buckwheat**, hulled or unhulled, 25 cents per one hundred pounds; buckwheat flour and grits or groats, one-half of one cent per pound.

**Par. 724.** **Corn** or maize, including cracked corn, 25 cents per bushel of fifty-six pounds; corn grits, meal, and flour, and similar products, 50 cents per one hundred pounds.

**Par. 726.** **Oats**, hulled or unhulled, 16 cents per bushel of thirty-two pounds; unhulled ground oats, 45 cents per one hundred pounds; oatmeal, rolled oats, oat grits, and similar oat products, 80 cents per one hundred pounds.

**Par. 727.** **Paddy or rough rice**, 1½ cents per pound; brown rice (hulls removed, all or in part), 1½ cents per pound; milled rice (bran removed, all or in part), 2½ cents per pound; broken rice, which will pass readily through a metal sieve perforated with round holes five and one-half sixty-fourths of one inch in diameter, and rice meal, flour, polish, and bran, five-eighths of 1 cent per pound.

**Par. 728.** **Rye**, 15 cents per bushel of fifty-six pounds; rye malt, 40 cents per one hundred pounds; rye flour and meal, 45 cents per one hundred pounds.

**Par. 729.** **Wheat**, 42 cents per bushel of sixty pounds; wheat, unfit for human consumption, 10 per centum ad valorem; wheat flour, semolina, crushed or cracked wheat, and similar wheat products not specially provided for, \$1.04 per one hundred pounds.

## Bulbs

**Par. 753.** **Tulip bulbs**, \$6 per thousand; hyacinth bulbs, \$4 per thousand; lily bulbs, \$6 per thousand; narcissus bulbs, \$6 per thousand; crocus corms, \$2 per thousand; lily of the valley pips, \$6 per thousand; all other bulbs, roots, rootstocks, clumps, corms, tubers and herbaceous perennials, imported for horticultural purposes, 30 per centum ad valorem.

## Nursery Stock

**Par. 754.** **Seedlings** and cuttings of Manetti, multiflora, brier, rugosa, and other rose stock, all the foregoing not more than three years old, \$2 per thousand; rose plants, budded, grafted, or grown on their own roots, 4 cents each; cuttings, seedlings, and grafted or budded plants of other deciduous or evergreen ornamental trees, shrubs, or vines, and all nursery or greenhouse stock, not specially provided for, 25 per centum ad valorem.

**Par. 755.** **Seedlings**, layers, and cuttings of apple, cherry, pear, plum, quince, and other fruit stocks, \$2 per thousand; grafted or budded fruit trees, cuttings and seedlings of grapes, currants, gooseberries, or other fruit vines, plants or bushes, 25 per centum ad valorem.

**Par. 762.** **Oil-bearing seeds and materials**: Castor beans, one-half of 1 cent per pound; flaxseed, 65 cents per bushel of fifty-six pounds; poppy seed, 32 cents per one hundred pounds; sunflower seed, 2 cents per pound; apricot

and peach kernels, 3 cents per pound; soy beans, 2 cents per pound; cotton-seed, one-third of 1 cent per pound.

## Farm Seeds

**Par. 763.** **Grass seeds** and other forage crop seeds: Alfalfa, 8 cents per pound; alsike clover, 8 cents per pound; crimson clover, 2 cents per pound; red clover, 8 cents per pound; white and ladino clover, 6 cents per pound; sweet clover, 4 cents per pound; clover, not specially provided for, 3 cents per pound; millet, 1 cent per pound; orchard grass, 5 cents per pound; rye grass, 3 cents per pound; timothy, 2 cents per pound; hairy vetch, 3 cents per pound; other vetch, 1½ cents per pound; bent-grass (*genus agrostis*), 40 cents per pound; bluegrass, 5 cents per pound; tall oat, 5 cents per pound; all other grass and forage crop seeds not specially provided for, 2 cents per pound: "Provided"—That no allowance shall be made for dirt or other impurities in seed of any kind.

## Garden Seeds

**Par. 764.** **Other garden and field seeds**: Beet (except sugar beet), 4 cents per pound; cabbage, 12 cents per pound; canary, 1 cent per pound; carrot, 4 cents per pound; cauliflower, 25 cents per pound; celery, 2 cents per pound; kale, 6 cents per pound; kohlrabi, 8 cents per pound; mangelwurzel, 4 cents per pound; mushroom spawn, 1 cent per pound; onion, 15 cents per pound; parsley, 2 cents per pound; parsnip, 4 cents per pound; pepper, 15 cents per pound; radish, 6 cents per pound; spinach, 1 cent per pound; tree and shrub, 8 cents per pound; turnip, 5 cents per pound; rutabaga, 5 cents per pound; flower, 6 cents per pound; all other garden and field seeds not specially provided for, 6 cents per pound: "Provided"—That the provisions for seeds in this schedule shall include such seeds whether used for planting or for other purposes.

**Onion Sets**—2½ cents per pound.

## Beans and Peas

**Par. 765.** **Beans**, not specially provided for, and black-eye cow-peas: Green or unripe, 3½ cents per pound; dried, 3 cents per pound; in brine, 3 cents per pound; prepared or preserved in any manner, 3 cents per pound on the entire contents of the container.

**Par. 769.** **Peas and chickpeas or garbanzos**: Green or unripe, 3 cents per pound in the case of peas, and, in the case of chickpeas or garbanzos, 2 cents per pound; dried, 1¾ cents per pound; split, 2½ cents per pound; prepared or preserved in any manner, 2 cents per pound on the entire contents of the container.

**Par. 1727.** **Oil-bearing seeds and nuts**: Copra, hempseed, kapok seed, palm nuts, palm-nut kernels, tung nuts, rapeseed, rubber seed, perilla and sesame seed; seeds and nuts, not specially provided for, when the oils derived therefrom are free of duty. (See following note.)

**Note:** In the opinion of the American Seed Trade Association counsel, Curtis Nye Smith, Esq., seedsmen should declare hempseed and all varieties of rapeseed under this Par. 1727, free of duty, and not under Pars. 763 or 764.

**ROSS SEED CO.**

INCORPORATED

LOUISVILLE, KY.

Established 1895

EXPORTERS - IMPORTERS

and JOBBERS of

ORCHARD GRASS

BLUEGRASS

REDTOP

CLOVERS

KOREAN (Lespedeza)

TIMOTHY

SOYBEANS

COWPEAS, ETC.

Car lots or less

**ROSS SEED CO.**

INCORPORATED

15th and Lytle

Louisville, Ky.

WE Specialize IN

ALFALFA  
SWEET CLOVER  
BLUE GRASS  
MEADOW FESCUE  
ORCHARD GRASS  
SUDAN  
MILLET  
AND CANE

*Rudy-Patrick*  
**SEED COMPANY**  
KANSAS CITY, MISSOURI



• SINCE 1873

**BRENT'S PREMIUM SEEDS**

FIELD SEEDS • GARDEN SEEDS • ONION SETS

**THE C. S. BRENT SEED Co.**

INCORPORATED

LEXINGTON » » KENTUCKY

**DAVENPORT SEED CO.**

Davenport, Iowa

Headquarters IOWA Grown TIMOTHY SEED

SOY BEANS - RED CLOVER - SWEET CLOVER

ALFALFA - KOREAN and HARBIN LESPEDEZA

Carlots a Specialty

Wholesale Field and Grass Seeds

**EXPORTS OF CLOVER SEED  
(ALL KINDS)**  
Years Ending June 30

| Year | Pounds    |
|------|-----------|
| 1910 | 6,977,685 |
| 1911 | 4,359,167 |
| 1912 | 1,874,682 |
| 1913 | 5,407,594 |
| 1914 | 4,640,852 |
| 1915 | 9,750,064 |
| 1916 | 7,116,220 |
| 1917 | 5,886,893 |
| 1918 | 9,439,314 |
| 1919 | 7,770,582 |
| 1920 | 5,061,792 |
| 1921 | 5,419,838 |
| 1922 | 4,007,233 |
| 1923 | 4,331,153 |
| 1924 | 784,471   |
| 1925 | 1,862,925 |
| 1926 | 973,109   |
| 1927 | 1,992,906 |
| 1928 | 1,838,783 |
| 1929 | 615,045   |
| 1930 | 1,439,547 |
| 1931 | 1,057,461 |
| 1932 | 723,018   |
| 1933 | 367,902   |
| 1934 | 3,568,168 |

**EXPORTS OF TIMOTHY SEED**  
Years Ending June 30

| Year | Pounds     |
|------|------------|
| 1910 | 18,044,488 |
| 1911 | 7,893,121  |
| 1912 | 11,111,807 |
| 1913 | 3,542,705  |
| 1914 | 13,689,707 |
| 1915 | 17,646,273 |
| 1916 | 12,428,140 |
| 1917 | 15,139,913 |
| 1918 | 8,564,384  |
| 1919 | 11,673,029 |
| 1920 | 15,304,646 |
| 1921 | 14,989,518 |
| 1922 | 20,150,357 |
| 1923 | 20,131,903 |
| 1924 | 15,501,856 |
| 1925 | 16,457,687 |
| 1926 | 9,942,494  |
| 1927 | 14,060,447 |
| 1928 | 17,677,670 |
| 1929 | 8,631,395  |
| 1930 | 12,123,110 |
| 1931 | 13,594,818 |
| 1932 | 13,948,236 |
| 1933 | 5,481,262  |
| 1934 | 5,378,920  |

**EXPORTS OF RED CLOVER  
SEED**

**By Calendar Years**

*Prepared from data obtained by the Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce*

| Year  | Pounds    |
|-------|-----------|
| 1923  | 800,550   |
| 1924  | 516,225   |
| 1925  | 415,921   |
| 1926  | 583,980   |
| 1927  | 1,279,867 |
| 1928  | 455,738   |
| 1929  | 523,535   |
| 1930  | 535,472   |
| 1931  | 670,304   |
| 1932  | 297,899   |
| 1933  | 3,025,438 |
| 1934* | 449,098   |

\* Six months ended June 30, 1934.

**EXPORTS OF ALFALFA SEED**

**By Calendar Years**

*Prepared from data obtained by the Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce*

| Year  | Pounds    |
|-------|-----------|
| 1923  | 399,346   |
| 1924  | 363,269   |
| 1925  | 1,332,992 |
| 1926  | 741,516   |
| 1927  | 1,393,474 |
| 1928  | 781,920   |
| 1929  | 825,830   |
| 1930  | 832,965   |
| 1931  | 218,044   |
| 1932  | 1,564,641 |
| 1933  | 1,198,796 |
| 1934* | 575,846   |

\* Six months ended June 30, 1934.

**WM. G. SCARLETT & CO.**

OFFICE & SEED CLEANING PLANT

729-743 E. Pratt St.

BALTIMORE, MD., U. S. A.

Cable Address, "Scarlett, Baltimore"

**GRASS & FIELD SEEDS  
BIRD SEEDS                    LAWN SEEDS**

**KENTUCKY BLUE GRASS**

WESTERN GROWN

**KANSAS ALFALFA**

VERIFIED ORIGIN

**T. LEE ADAMS SEED CO.**

Since 1882

KANSAS CITY, MO.

*Shippers of*  
**SWEET CLOVER**  
**BROMUS**  
**ALFALFA**  
**SEED GRAIN**  
**POTATOES**

●  
**INTERSTATE**  
**SEED & GRAIN CO.**  
**FARGO, N. D.**

*We specialize in the following***OREGON GROWN SEEDS**

Hairy Vetch

Common Vetch

Hungarian Vetch

Austrian Peas

Ryegrass

Mesquite

Red Clover

Alsike Clover

Write for prices on prompt and future shipment  
*Wholesale only***ALBANY SEED COMPANY****ALBANY****W. A. Vollstedt, Mgr.****OREGON**

**Keep your sales message consistently before  
the retailers, wholesalers and growers of the  
industry, through Seed World.**

**— It Pays —****SEED WORLD**

325 W. Huron St.

Chicago

## SEED VERIFICATION SERVICE HAS BIGGEST YEAR

*(Prepared by U. S. Bureau of Agricultural Economics)*

**M**ORE ALFALFA SEED was verified as to origin during the Seed Verification Service year which ended July 31, 1934, than in any year since the inception of the Service in 1927. This is significant because the 1933 production of alfalfa seed was below average and the fees were increased from 2 cents per 100 pounds to 3 cents. The growth of the Service indicates an increasing popularity for verified-origin seed.

During the past year the new rules, regulations, and instructions governing origin verification of seed were in effect, and in the main they were found to be satisfactory. They incorporated three important changes, namely, the limiting of the origin of alfalfa seed to three states or less, the revision of the old form of shipper's declaration, and the raising of the fees. These changes have been fruitful of results.

Those who have called attention to the undesirability of multiple origins of alfalfa seed for the last few years will be glad to learn that this situation has almost been entirely corrected by the regulation with respect to the number of states of origin. During the last (verification) year 89.86% of the verified-origin alfalfa seed offered for sale carried certificates showing the origin to be a single state, 6.95% indicated two states, 2.94% indicated three states, and 0.25% indicated four or more states. Practically all the lots the origins of which were four or more states represented seed carried over from the previous year, when it was permissible to prepare such blends. Last year, as may be seen from the foregoing figures, approximately 97% of all the verified-origin alfalfa seed sold was of either one state or two states of origin.

Kansas again led all other states as the principal source (origin) of verified-origin alfalfa seed that was offered for sale during the 1933-34 season. It was, however, closely pressed by Montana, these two states accounting for 46% of all the alfalfa seed verified. Other states in the order of the quantities verified are: Nebraska, Idaho, South Dakota, Utah, Michigan, Minnesota, and Oklahoma. Besides the states mentioned, there are 13 other states that produced seed that was verified as to origin. In this connection, it might be well to mention that seed from any state of production is eligible for verification of origin, but that the bulk of the seed verified comes from northern and central-producing districts.

The raising of the fees from 2 cents to 3 cents per 100 pounds put the Service on a self-supporting basis. During the last season 2,005 inspection certificates were issued, the fees for which amounted to \$18,293.28, compared with \$8,907.86 the year be-

fore and \$8,136.07 two years ago. Approximately 44,000,000 pounds of alfalfa and 17,000,000 pounds of red clover seed were verified during the 1933-34 season, compared with 25,000,000 and 19,000,000 pounds, respectively, during the preceding season.

The quality of the verified-origin seed sold in 1933-34 was, as in previous years, better than that of non-verified origin seed. Approximately 80% of the alfalfa and nearly 98% of the red clover samples collected were of good to very good quality, and less than 3% of the alfalfa and only  $\frac{1}{3}$  of 1% of the red clover samples were below fair in quality. This indicates that at this time there is little or no need of making further restriction regarding the quality of verified-origin seed than that which has been in effect almost since the Service began, namely, that tag certificates should not accompany shipments of screenings or other low-grade seed.

The revision of the old form of shipper's declaration made that form more understandable by the hundreds of country shippers who had occasion to use it. It has been found necessary, however, to make additional restrictions relative to the acceptability of these declarations. Up to the present season (1934-35) declarations of origins were accepted from general seed dealers not enrolled in the Service but who were situated in a surplus alfalfa seed producing district and were keeping proper records and otherwise meeting the requirements of the Service. At the present time, in addition to the former requirements, these dealers are required to show on tags the state or states of origin and the lot number or other identification of every lot of alfalfa seed shipped by them if they wish to continue to furnish declarations of origin. This will tend to decrease the quantity handled of origins undesirable for sowing in sections where these dealer-shippers are situated and make for fairer competition between them and verified-origin seed dealers who are required to accompany all shipments of alfalfa seed, except state-certified and sealed seed as well as imported and low-grade seed, with certificates showing the lot identification and origin.

The enrollment for the 1934-35 season is even greater than that of last season, when there were 68 verified-origin seed dealers. Only one of those dealers has withdrawn from the Service, and his place has been taken by 19 others. The 86 dealers, situated in 24 states, now enrolled are expected to handle more than 90% of the alfalfa seed that enters commerce. Up to the end of October, much more alfalfa seed was verified as to origin than during the corresponding period in any previous year.

# CHARACTERISTIC ADAPTATIONS OF THE MORE IMPORTANT TURF GRASSES

*(Reprinted from Golfdom and Rutgers University Greenkeeping Short Course)*

| Name of Grass<br>Scientific  | Common   | Time Required<br>to Produce<br>Good Turf    | Adaptation of                              |   |                                       | Uses                       | Remarks   |
|--|--|---|--|---|---------------------------------------|----------------------------|---|
|  |  |   | Wet or<br>Dry Soils                        | Sandy or<br>Clayey Soils                            | Acid Soils                            |                            |   |
| <i>Agrostis alba</i> or <i>Agrostis palustris</i> or <i>Agrostis stolonifera major</i> | Redtop harsh white southern English bent or herd grass                                       | One season                                  | Adapted to wet and tolerant of dry soils   | Adapted to clayey soils                             | Tolerant                              | Fairways, greens and lawns | Sod forming habit of growth. Lasts about 1 year under close mowing. Used chiefly as a temporary grass.  |
| <i>Agrostis tenuis</i> or <i>Agrostis capillaris</i> or <i>Agrostis vulgaris</i>       | Rhode Island bent, Colonial bent, Brown top, "Golfalawn," "Astoria bent" and "P. E. I. bent" | One season                                  | Adapted to both moist and dry soils        | Adapted to clayey and sandy soils if well drained   | Tolerant                              | Greens, fairways and lawns | Probably used more extensively than any other seeded bent. German mixed bent contains about 75% of it. Sod forming habit of growth.   |
| <i>Agrostis Stolonifera Maritima</i>   | Creeping bent, Seaside bent and "Fiorin"   | One season from seed; 2 months from stolons | Adapted to moist soils                     | Adapted to clayey and tolerant of sandy soils       | Very tolerant                         | Greens, lawns and fairways | German mixed bent contains about 2% of it. Seaside bent also called <i>Agrostis maritima</i> . Sod forming habit of growth.   |
| <i>Agrostis Canina</i>   | Velvet, dog brown bent   | One season                                  | Adapted to moist soils                     | Adapted to clayey soils                             | Very tolerant                         | Greens and lawns           | Adapted to about same region as Kentucky blue grass. German mixed bent contains about 15% of it. Sod forming habit of growth.   |
| <i>Poa pratensis</i>   | Kentucky blue  | Two seasons                                 | Adapted to moist soils                     | Adapted to clayey soils                             | Resistant to cold but not hot weather | Fairways and lawns         | Requires fertile soils and responds to lime treatments. Sod forming habit of growth. Will not stand close mowing.   |
| <i>Poa compressa</i>   | Canada blue  | Two seasons                                 | Tolerant of dry soils                      | Adapted to clayey soils                             | Resistant to cold but not hot weather | Fairways and roughs        | Use only when soil is thin and poor. Does well on rocky or gravelly soils. Not as good as Kentucky blue or redtop on good soils.  |
| <i>Poa trivialis</i>   | Rough-stalk meadow grass or bird grass   | Two seasons                                 | Adapted to moist soils                     | Adapted to clayey soils                             | Resistant to cold but not hot weather | Fairways and lawns         | Best of all grasses for shady lawns. Sod forming habit of growth.   |
| <i>Poa annua</i>   | Annual blue grass, spear grass or meadow grass   | One season                                  | Adapted to moist soils                     | Adapted to clayey soils                             | Resistant to cold but not hot weather | Greens, fairways and lawns | Sod forming habit of growth.  |
| <i>Festuca rubra</i>   | Red fescue   | One season                                  | Adapted to moist and tolerant of dry soils | Adapted to sandy loams and tolerant of clayey soils | Tolerant                              | Greens, fairways and lawns | 2 commercial var. of red fescue are creeping r'fescue ( <i>F. rubra</i> var. <i>genuina</i> ) and New Zealand or Chewing's fescue ( <i>F. rubra</i> var. <i>fallax</i> ). One of the best grasses for shady lawns, sod. F. habit of growth. |
| <i>Festuca ovina</i>   | Sheep's fescue   |   | Very tolerant of dry soils                 | Adapted to sandy soils                              | Tolerant                              | Rough                      | Especially adapted to soils which are thin, sandy and rocky. Bunch forming habit of growth.   |
| <i>Festuca duriuscula</i>  | Hard Fescue  |   | Very tolerant of dry soils                 | Adapted to sandy soils                              | Tolerant                              | Rough                      | Variety of sheep's fescue. Bunch forming habit of growth.   |
| <i>Festuca caerulea</i> or <i>Festuca tenuis</i>                                       | Fine-leaved fescue   |   | Tolerant of dry soils                      | Adapted to sandy soils                              | Tolerant                              | Lawns                      | Variety of sheep's fescue. Thrives well in shady lawns. Bunch forming habit of growth.  |

## SEEDSMEN'S LEGAL QUESTIONS ANSWERED

During the past seventeen years Seed World has conducted a Legal Department, in which subscribers' questions have been answered and current court decisions of interest to the seed trade have been discussed. Believing that the questions that have arisen most frequently in the past are likely to continue to be encountered by the seed trade we have had our attorney, Herbert Bebb, prepare the following selection and condensation from the Legal Department material.

### Catalog Delay

**Question:** We figure that we have lost some sales due to failure of our printer to deliver our catalogs on the agreed date. Are we entitled to recover such lost profits?

**ANSWER:** In Drumm Seed Co. vs. McFarland, 30 S. W. 93, the Court held that before such lost profits can be allowed "the amount of loss thus sustained must be shown with reasonable accuracy and the instances in which it would be possible to make this proof must necessarily be exceptional." In view of the difficulty in proving such damages we advise the inclusion of a liquidated damages clause in important printing contracts.

### Commission Seeds

**Question:** What protection does the wholesaler have against a bulk sale of commission seed stand and packets or against their being levied upon by a judgment credit of the retail dealer who has them on consignment?

**ANSWER:** The consignee of a stand of commission seeds is legally a "Bailee". In our opinion his authority to sell the packets separately at retail does not amount to a representation by the wholesaler that he has authority to sell or pledge the entire stand. See Romeo vs. Martucci, 72 Con. 504.

### Corporate License

**Question:** In connection with our commission seed business should our corporation be licensed to do business in those states in which we will place our stands or boxes?

**ANSWER:** By the weight of authority sales by a consignee of goods received from a consignor out of the state are regarded as Interstate Commerce and hence a corporate consignor need not be licensed to do business in the state in which the sales are made. See Butler Brothers vs. U. S. Rubber Company, 156 Federal 1.

### Crop Failure

**Question:** Does a crop failure excuse us from furnishing strawberry plants which we have contracted to furnish at this season?

**ANSWER:** No. If you unconditionally undertook to furnish a certain number of plants without stating where they were coming from or otherwise connecting your liability with the supply then you would remain liable despite the crop failure.

### Damages

**Question:** What is the proper measure of damages for loss of crop because of faulty seed?

**ANSWER:** Where a crop is produced upon which expected profits can be estimated the proper measure of damages is the difference in value between the crop grown and the crop that would have been grown if the seed had been according to contract. If no crop is produced then the measure of damages includes (1) the purchase price; (2) the rental value of the land; (3) the labor in preparing, sowing, cultivating; (4) hauling the seed from the place of purchase. See Lundquist vs. Jennison, 214 Pac. 67.

### Disclaimer, Custom

**Question:** Where there is no non-warranty clause in the written contract, can the seedsman defend on the theory that the parties must be understood to have dealt with reference to the general non-warranty custom?

**ANSWER:** Yes. The tendency of recent decisions, particularly in the west, has been strongly in the direction of recognizing the non-warranty custom, thus in effect incorporating the disclaimer clause into seed contracts. The most recent decision along this line was Hoover vs. Utah Nursery Company, 7 Pac. (2nd) 270, in which earlier authorities are discussed, particularly the exhaustive opinion in Miller vs. Germain Seed & Plant Company, 193 Cal. 162. Other cases are cited in 37 LRANS 79; An. Cas. 1918 B71; 16 ALR. 859, which will be found in any large law library. Most of the cases giving effect to the disclaimer custom have been from west of the Mississippi River but in 1931 New York was added to the list by an important decision in Lumbrizo vs. Woodruff, 256 N. Y. 92. Some of the refusals to give effect to the disclaimer custom may be attributed to failure of the seedsman and his attorneys to make sufficient proof as to the existence of the custom. Such a case will be found in National Seed Company vs. Leavell, 259 S. W. 1035. In American Warehouse Company vs. Ray (1912 Texas Civil Appeals), 150 S. W. 763, it was held that the disclaimer custom could have no effect unless it was to show that the plaintiff "had knowledge of such custom or contracted with it in view."

### Disclaimer, Location

**Question:** Where should the disclaimer be placed?

**ANSWER:** We advise placing the disclaimer on your letterheads and on all forms on which contracts may be drawn in such a location that it will read as a part of the contract. Some cases hold that obscurely printed conditions above the salutation upon a letterhead will not be read into a contract written thereon. One such case is Sturtevant Co. vs. Fireproof Co., 216 N. Y. 199. On the other hand, it was held in Poel vs. Brunswick Co., 216 N. Y. 310, that such printed additions, if sufficiently prominent, will be taken as part of the contract. Rodesch vs. Kirkpatrick Coal Company, 41 Fed. (2nd) 518, is a similar case.

Placing the disclaimer on tags and invoices is not alone enough since on most sales the contract has been closed before these papers come to the buyer's attention. See Edgar vs. Breck, 172 Mass. 581, and Werd vs. Walker, 176 N. W. 129.

### Disclaimer, Relation to Pure Seed Law

**Question:** Is it permissible to put the standard disclaimer on the tag required by the uniform Pure Seed Law?

**ANSWER:** We understand that some state officials have taken the position that such use of the disclaimer is inconsistent with the spirit of the requirement that certain information be placed on the tag. In Mangelsdorf Seed Company vs. Busby (1926 Okla.), 247 Pac. 410, the Court held that the seed company "had a clear right to meet this issue of implied warranty by proof tendered of an express non-warranty." Although the presence of the disclaimer on a tag was not involved, the case did arise

- The **Cost** of the Seed is the smallest item in the production of a crop.
  - The **Best Seed** is the **Cheapest** in the end.
  - The **Quality** of **RICE'S SEEDS** has been an accepted standard of value in the seed trade for over 100 years.

# **Jerome B. Rice Seed Co.**

- **Wholesale Growers of Garden Seeds.**
  - Our stocks are complete and well balanced.
  - You will be pleased with our quotations on your list of requirements.
  - Quick Mid-West service from our branch at CARSON CITY, MICHIGAN, on your orders sent there.

# **THE CHAS. C. HART SEED COMPANY**

# GARDEN SEED FLOWER SEED SWEET CORN BEANS PEAS

**WRITE OR WIRE FOR QUOTATIONS  
ON YOUR SEED REQUIREMENTS  
FOR EITHER PROMPT OR FUTURE  
DELIVERY. WE KNOW WE CAN  
PLEASE YOU IN BOTH QUALITY  
AND PRICE.**

# **THE CHAS.C.HART SEED COMPANY**

# **Our Selected Strains of TOMATO SEED**

are certified by the  
**NEW JERSEY DEPARTMENT  
OF AGRICULTURE**

We are growers for the wholesale seed trade only of carefully selected and tried strains of

Pepper    «    »    Cucumber  
Egg Plant    «    »    Squash  
Pumpkin

---

**Every shipment is backed by the Hurff  
reputation.**

# **EDGAR F. HURFF**

**Swedesboro, N. J.**

under the Pure Seed Law and if the disclaimer can be proved when used separately, we see no legal reason why it should not appear on the tag provided it is so used as not to obscure the statutory data.

### **Disclaimer, on Retail Sales**

**Question:** If a retailer sells over the counter seeds in packages bearing a wholesaler's disclaimer is the retailer protected by such disclaimer?

**ANSWER:** No. The retailer in such case would not be protected by the express disclaimer although he might defend on proof of a general custom not to warrant. See Jolly vs. Blackwell, 211 Pac. 748.

Authorities as to the liability of the producer to the ultimate consumer who purchased from a middleman are cited and discussed in 39 A. L. R. 1000 and in 17 A. L. R. 672. The editor points out that an early case permitting the sub-purchaser to enforce warranties against the producer has been repudiated and that unless the facts involve a tort liability the sub-purchaser must look only to the retailer with whom he dealt.

### **Disclaimer, Standard Wording**

**Question:** What is the official wording of the Seed Trade Disclaimer Clause?

**ANSWER:** "The ..... Company gives no warranty, express or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs, or plants it sells, and will not be responsible for the crop."

### **Disclaimer, Variations in Wording**

**Question:** We feel that the wording of the standard disclaimer is abrupt and harsh. We contemplate substituting a statement emphasizing the care that we take but pointing out that we have no control over conditions of cultivation. Would you approve of such changes?

**ANSWER:** While we sympathize with your reluctance to employ wording which emphasizes only the negative aspects of your engagement, we nevertheless advise sticking to the standard wording. There is danger that you might fail to cover the entire ground or that your new wording might involve ambiguities that would not occur to you. More important than this is the point that the use of uniform wording by the entire trade is an advantage, first, to the trade since each seedsman using the clause is strengthening the custom theory on which many cases are being favorably decided and, second, to the individual since it is to the interest of each seedsman to bring himself squarely within the protection of this uniform custom.

### **General Statement of Law**

**Question:** Where may I read a general introductory statement of law applicable to warranties of seeds?

**ANSWER:** You will find such a statement in the introduction to the annotation to Johnson vs. Foley Company, in 16 A. L. R. 859. We may summarize a part of that statement as follows. Most seed contracts are sufficiently descriptive to indicate that the subject of sale is to be used for planting. This gives rise to an obligation which some courts call an "express warranty," others an "implied warranty," and still others a "condition". Since this obligation of the seller survives acceptance at least as to defects which inspection would not disclose, the distinction is often disregarded. The fact that the buyer cannot determine by inspection whether the articles tendered by

the seller comply with the contract is the reason for the exceptional rule applied to sale of seeds that in absence of an express disclaimer a warranty will be implied.

### **Growers Contract**

**Question:** Can you give us a good form for a contract between a seedsman and a grower?

**ANSWER:** The form used by the Ferry-Morse Seed Company has stood the test of successful litigation in Ferry vs. Forquer, 202 Pac. 193, and Ferry vs. Smith, 209 Pac. 1066. That form is as follows:

..... Seed Co. .... P.O. .... State ..... 19.

I..... agree, on the terms and conditions stated below, to raise for you, on lands of suitable quality and condition, located in Section..... Township of..... County of..... and State of..... and to deliver to you at..... the following seeds: .....

I agree properly to prepare and plant such lands with Stock Seed to be furnished by you at .....; properly to cultivate and care for the crop; to harvest, cure, separate and clean, as well as possible with ordinary farm machinery, its entire seed product, in such manner as to secure the greatest possible return of seeds suitable for Seedsman's use; and to sack and deliver all the seed to you at....., as soon as the seed can be put in suitable condition, and before November 30, 19...., without wasting, feeding, selling, reserving or allowing any portion of the crop or seed furnished to pass from my possession except as delivered to you. You are to pay all freight charges on stock seed, crop and on any bags you send me. The stock seed and seed crop produced from it is, and shall remain your property except as otherwise stated in this contract.

In order to prevent hybridization and to keep the crop pure, I agree that during the life of this contract I will not grow Seeds of the same species for any other person, and as far as I am able to prevent it, there shall be no other plants of the same species grown within ten rods of this crop. I will take at all times every reasonable precaution to keep the crop pure and to prevent seed of any chance plants of a different variety or of a stock of the same variety different from that sent me by you, becoming mixed with seeds grown under this agreement. You or your agents may at any time enter the field and, at your own expense, make such examination, selections or rejections as you or they deem desirable for the betterment of the crop for seed purposes, and you or they shall not be liable for necessary damage, if any, to my crop resulting from such work.

You are carefully to weigh and test the crop upon its delivery. Any remilling is to be done by you at your expense. You may refuse to accept the crop if less than eighty-five per cent (85 per cent) of the seeds are vital, or if in your judgment the crop is in any other respect unfit for Seedsman's use and cannot be made fit without an unreasonable amount of cleaning or hand picking. In case of dispute as to vitality, it is agreed that a sample of the seeds may be submitted to the United States Department of Agriculture for testing, and the report of the Department of Agriculture on the sample submitted shall be final and binding on both of us. The sample shall be taken from the seeds as they stand in your warehouse, by drawing a sample from each sack, then thoroughly mixing the same, and taking a sample from the mixture, which shall be sent by the ordinary course of mail or otherwise to the Department of Agriculture at Washington, D. C. In case you refuse to accept the crop, its title shall vest in me and in such event or in case of loss of stock seed through crop failure or otherwise I agree to reimburse you immediately for stock seed and bags furnished, and for all freight charges paid by you on any rejected crop. If, within 60 days after you mail me notice of refusal to accept the seeds, you do not receive directions from me as to their disposition, you may dispose of them as you wish.

In consideration of the faithful carrying out of this Agreement by me and as full compensation for my services, you are to pay me at the rate of ..... per necessary weight to give 100 pounds of hand-picked ..... for all seed in excess of the Stock Seed furnished me, delivered under this contract and accepted by you; payment to be made immediately upon your acceptance of the seed. No payment is to be made

# Growers of QUALITY SEED

*for the Wholesale Trade —  
Specialties*

|        |         |         |            |
|--------|---------|---------|------------|
| BEET   | ENDIVE  | PARSLEY | PEAS       |
| CARROT | LETTUCE | PARSNIP | BEANS      |
| CÆLERY | MUSTARD | RADISH  | SWEET PEAS |
| CHARD  | ONION   | SALSIFY | NASTURTIUM |

## SHERWOOD SEED CO.

108-110 DAVIS ST. • SAN FRANCISCO, CALIFORNIA

Specializing  
in  
CAREFULLY  
SELECTED  
STOCKS



FORDHOOK  
BUSH LIMA  
BEANS  
—  
A  
STOCK WHICH  
INVITES  
COMPARISON

WHAT MERCHANDISE  
CAN THE SEED DEALER  
HANDLE PROFITABLY?

Ask Seed World Service Dept.  
325 W. Huron St., Chicago

for any seed which you do not consider sufficiently pure, clean and dry for Seedsman's use and no credit is to be given for dirt, or for damaged or poor seed which has to be removed. In all cases, the screenings and culls are to remain the property of the party who separates them from the crop.

If so requested in writing, you shall loan for my use free of charge, suitable bags for shipping the crop, or you shall allow me full wholesale market value for all new, sound, undefaced, seamless cotton grain bags which I may buy and you receive containing the crop.

This letter, when accepted by you, shall constitute our contract, and be construed according to..... laws. There are no agreements or understandings regarding the subject matter of this letter other than expressed above.

Yours truly,

Accepted at..... this ..... day  
of..... 19...

..... Seed Co.

By.....

In Thiel vs. Pac. Fruit & Produce Co., 4 Pac. (2nd) 356, a seedsman was defeated because he had failed to incorporate in his contract a reservation of title such as is included in the Ferry form. See also Robinson vs. Stricklin, 73 Nebr. 242.

#### Loss in Shipment

**Question:** Where peas are shipped under a "shippers order" bill of lading with draft attached, which party stands the risk of loss in course of shipment?

**ANSWER:** The Buyer. "As soon as the peas arrived and were stored, the title to the peas passed to the appellant buyer subject to the respondent seller's right to hold the goods until payment of the agreed purchase price." Inland Seed Co. vs. Washington-Idaho Seed Co., 294 Pac., 991.

#### Notice of Defects

**Question:** Can a buyer of warranted seed, in the face of knowledge that the seed is faulty, plant it and recover crop damage?

**ANSWER:** No. In Tomita vs. Johnson

(Idaho), 290 Pac. 395, it was shown that an experienced potato grower knew from cutting into the seed potatoes that they were diseased, and the Court held "under these facts he cannot recover crop damage resulting from planting the diseased seed in question."

#### Plant Patents

**Question:** What are the statutory limitations upon plant patents?

**ANSWER:** The Patent Law in Sec. 4886 provides that "any person who has invented or discovered any new and useful art, machine \* \* \* or who has invented or discovered and asexually reproduced any distinct and new variety of plant, other than a tuber-propagated plant, not known or used by others may, upon payment of the fees required by law \* \* \* obtain a patent." The limitation to asexual reproduction means that the plants of most importance economically are excluded. For example, our common cereals being reproduced by seed and not by cuttings cannot be patented. The "tuber-propagated" wording is for the purpose of excluding potatoes. It should be noted that the wording of the statute requires that mechanical patents be "useful" but that this word does not appear in the phraseology relating to plant patents.

#### Trade Mark; Variety Name

**Question:** We have originated a new variety of sweet corn. Can we prevent competition by trade marking the name?

**ANSWER:** No. The name which you give to your new variety will become in substance a descriptive name and can be used as such by any person to describe seed from the same strain. The proper function of a trade mark is simply to identify the producer or origin of goods. In general a descriptive name is not available for registration as a trade mark. See Hoyte vs. Lovett, 71 Federal 173, 178.

**SEEDWORLD**  
325 W. HURON ST.  
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**1935**

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|         | AUG. 30  |
| MAR. 1  |          |
| MAR. 15 | SEPT. 13 |
| MAR. 29 | SEPT. 27 |
| APR. 12 | OCT. 11  |
| APR. 26 | OCT. 25  |
| MAY 10  | NOV. 8   |
| MAY 24  | NOV. 22  |
| JUNE 7  | DEC. 6   |
| JUNE 21 | DEC. 20  |

# COMMODITIES FOR WHICH BUSHEL WEIGHTS HAVE BEEN ESTABLISHED IN MORE THAN FOUR STATES

| Kind                | Commonly Accepted Weight per Bu.—Lbs. |  |
|---------------------|---------------------------------------|--|
| Alfalfa .....       | 60                                    |  |
| Barley .....        | 48                                    | 50 lbs. in California.<br>32 lbs. in Louisiana.  |
| Beans .....         | 60                                    |  |
| Beans, Castor ....  | 46                                    | 50 lbs. in Iowa, Maryland, Nebraska and South Dakota.<br>48 lbs. in Florida.   |
| Beans, Lima ....    | 56                                    |  |
| Beans, Soy ....     | 58                                    | 60 lbs. in North Carolina and Virginia.  |
| Bluegrass .....     | 14                                    |  |
| Bran .....          | 20                                    |  |
| Bromegrass .....    | 14                                    |  |
| Broomcorn .....     | 50                                    | 42 lbs. in Alabama, South Carolina and Tennessee.<br>48 lbs. in Arkansas, Illinois, Oklahoma and Texas.<br>30 lbs. in Kansas and North Dakota.<br>57 lbs. in Minnesota and West Virginia.<br>44 lbs. in North Carolina.<br>45 lbs. in Ohio.  |
| Buckwheat .....     | 48                                    | 50 lbs. in Alabama, Idaho, Minnesota, Nebraska, Nevada, North Carolina, Ohio, South Carolina, Tennessee and Wisconsin.<br>52 lbs. in Arkansas, Georgia, Illinois, Missouri, Montana, New Mexico, Oklahoma and Texas.<br>40 lbs. in California.<br>56 lbs. in Kentucky.<br>42 lbs. in North Dakota. |
| Canary Seed ....    | 60                                    |  |
| Clover Seed ....    | 60                                    |  |
| Corn, Cracked ....  | 50                                    |  |
| Corn, in Ear.....   | 70                                    | 68 lbs. in Ohio and West Virginia.   |
| Corn, Pop, in Ear   | 70                                    | 42 lbs. in Ohio.   |
| Corn, Shelled ....  | 56                                    | 52 lbs. in California.   |
| Corn, Sweet ....    | 50                                    | 48 lbs. in Minnesota and North Dakota.<br>45 lbs. in Ohio.   |
| Cornmeal .....      | 50                                    | 48 lbs. in Arkansas, Florida, Idaho, Illinois, Iowa, Maryland, Mississippi, Nebraska, Nevada, Ohio, Virginia and West Virginia.  |
| Cottonseed .....    | 32                                    | 30 lbs. in Georgia, North Carolina, South Carolina and Virginia.<br>33½ lbs. in Arkansas.<br>33 lbs. in Missouri.<br>28 lbs. in Tennessee  |
| Emmer .....         | 40                                    | 48 lbs. in Nebraska.<br>45 lbs. in Wyoming.  |
| Flaxseed .....      | 56                                    |  |
| Hempseed .....      | 44                                    | 50 lbs. in Minnesota and North Dakota.<br>48 lbs. in Nevada.   |
| Herdsgrass .....    | 45                                    |  |
| Kafir Corn .....    | 56                                    | 50 lbs. in North Carolina and Texas.   |
| Kale .....          | 12                                    | 10 lbs. in North Carolina.<br>15 lbs. in South Carolina.<br>30 lbs. in Tennessee.  |
| Millet .....        | 50                                    | 48 lbs. in Minnesota.  |
| Millet, Jap .....   | 35                                    |  |
| Oats .....          | 32                                    |  |
| Orchard Grass ...   | 14                                    |  |
| Peanuts .....       | 22                                    | 25 lbs. in Georgia.<br>20 lbs. in Illinois, Maine, New Hampshire, South Dakota and Vermont.<br>24 lbs. in Kentucky and Mississippi.<br>23 lbs. in South Carolina and West Virginia.  |
| Peas .....          | 60                                    |  |
| Potatoes, Irish ... | 60                                    | 56 lbs. in West Virginia.  |
| Potatoes, Sweet ... | 50                                    | 55 lbs. in Alabama, Georgia, Kentucky, Minnesota and Oklahoma.<br>54 lbs. in Connecticut, Maine, Mississippi, New Hampshire, New York, Pennsylvania, Rhode Island, South Dakota, Vermont and Wisconsin.<br>56 lbs. in Florida, Michigan, Missouri, North Carolina and Virginia.                    |
| Rape Seed .....     | 50                                    |  |
| Red Top .....       | 14                                    |  |
| Rice (unhulled)...  | 45                                    | 44 lbs. in Maine, North Carolina and South Carolina.<br>43 lbs. in Georgia.  |
| Rye .....           | 56                                    | 54 lbs. in California.   |
| Sorghum .....       | 50                                    | 57 lbs. in Minnesota, North Dakota and West Virginia.<br>56 lbs. in Florida.<br>42 lbs. in Mississippi and Missouri.   |
| Speltz .....        | 40                                    | 48 lbs. in Nebraska.<br>45 lbs. in Wyoming.  |
| Timothy .....       | 45                                    | 60 lbs. in Arkansas.   |
| Wheat .....,        | 60                                    |  |

## TRADE MARKS AND SLOGANS

MANY SEEDSMEN as well as manufacturers have spent years in building up a demand for their trade-marked items and buyers have for years bought on these brands. At times a buyer does not remember the name of the manufacturer or seedsman who produces a certain brand. This alphabetical list of trade-marked brands should prove useful. For names of firms using trade marks not listed here, write us.

### SEEDS

- Acme**—seeds—J. Chas. McCullough Seed Co., Cincinnati, Ohio.
- Aero**—garden, flower and field seeds—Griswold Seed & Nursery Co., Lincoln, Nebr.
- AH**—garden seeds—A. Hansen, Kastrup, Denmark.
- A. H. 291**—cauliflower seed—A. Hansen, Kastrup, Denmark.
- Antelope**—seeds—Nebraska Seed Co., Omaha, Nebr.
- Asgrow**—seeds—Associated Seed Growers, Inc., New Haven, Conn.
- Beaver**—timothy seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Best Seeds**—farm and garden seeds—T. Lee Adams Seed Co., Kansas City, Mo.
- Big Chief**—field seeds—Northwestern Seed Co., Keokuk, Iowa.
- Blackfoot**—alfalfa seed—Idaho Grimm Alfalfa Seed Growers Assn., Blackfoot, Idaho.
- Blackfoot**—alfalfa seed—W. H. Crossland, Milwaukee, Wis.
- Blood Tells**—seeds—Rogers Bros. Seed Co., Chicago, Ill.
- Bloomsdale**—garden seeds—D. Landreth Seed Co., Bristol, Pa.
- Brent's Premium**—field and garden seeds—C. S. Erent Seed Co., Lexington, Ky.
- Brown's Tested Seeds**—**They Grow**—garden seeds—Alfred J. Brown Seed Co., Grand Rapids, Mich.
- Buckeye**—seeds—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Buist's Prize Medal**—garden seeds—Robt. Buist Co., Philadelphia, Pa.
- Burpeeana**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Burpee's Seeds Grow**—W. Atlee Burpee Co., Philadelphia, Pa.
- Cantaloupe-Imperial**—cantaloupe seed—J. C. Robinson Seed Co., Waterloo, Nebr.
- Central Park**—lawn seed—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Chr. Olsen**—garden, root and grass seeds—Chr. Olsen, Ltd., Odense, Denmark.
- Colonial Boy**—garden seeds—D. Landreth Seed Co., Bristol, Pa.
- Columbia Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.
- Compass Brand**—field seeds—Davenport Seed Co., Davenport, Iowa.
- Crystal**—field seeds—Minneapolis Seed Co., Minneapolis, Minn.
- Cucumber-Colorado**—cucumber seed—J. C. Robinson Seed Co., Waterloo, Nebr.
- Daehnfeldt's**—seeds—L. Daehnfeldt & Theo. Jensen, Odense, Denmark.
- Dependability**—watermelon seeds—D. H. Gilbert, Monticello, Fla.
- Disco**—farm and garden seeds—Dakota Improved Seed Co., Mitchell, S. D.
- Duryea's Central Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.
- Eagle**—alsike seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Emerald**—farm and garden seeds—Dakota Improved Seed Co., Mitchell, S. D.
- Ermine**—timothy seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Evergreen**—lawn green seed—Duryea Seed Co., Inc., New York, N. Y.
- Falcon**—field seeds—Minneapolis Seed Co., Minneapolis, Minn.
- Farmer Brand**—farm and garden seeds—Farmer Seed & Nursery Co., Faribault, Minn.
- Ferti-Lawn**—fertilized lawn seed—Fertilaw Co., Inc., Hamilton, N. Y.
- Floradale**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Fordhook**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Gladflower**—flower seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Goldinhart**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Gold Medal**—field seeds—Louisville Seed Co., Louisville, Ky.
- Gold Standard**—red top seed—J. M. Schultz Seed Co., Dieterich, Ill.
- Gramercy Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.
- Greene Park**—lawn grass seed—Page Seed Co., Greene, N. Y.
- Greenway**—lawn seed—Wm. G. Scarlett & Co., Baltimore, Md.
- Haco**—red cabbage seed—Hjalmar Hartmann & Co., Copenhagen, Denmark.
- Harvest**—field seeds—Wm. G. Scarlett & Co., Baltimore, Md.
- Hawk**—alsike seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Hawk-Eye**—field seeds—Hamilton Seed & Coal Company, Cedar Rapids, Iowa.
- Heinr. Mette**—vegetable and flower seeds—Heinr. Mette, Quedlinburg, Germany.
- Helios**—cauliflower seed—J. E. Ohlsens Enke, Copenhagen, Denmark.
- Idatah**—field seeds—Occidental Seed Co., Salt Lake City, Utah.
- Interstate**—seeds, grain, potatoes—Interstate Seed & Grain Co., Fargo, N. D.
- Iroquois**—farm seeds—Iroquois Seed Service, Chicago, Ill.
- Isbell**—seeds—Isbell Seed Co., Jackson, Mich.
- It Pays to Sow 'Em**—field seeds—Ross Seed Co., Louisville, Ky.
- J. Chas. McCullough Seed Co.**—seeds—J. Chas. McCullough Seed Co., Cincinnati, Ohio.
- K**—field seeds—H. C. King & Sons, Inc., Battle Creek, Mich.
- K-T Hungary**—field seeds and bird foods—Kemeny Tibor, Budapest, Hungary.
- Kelway's**—flower seeds—Kelway & Son (1933) Ltd., Langport, England.
- Keystone**—seeds—Corneli Seed Co., St. Louis, Mo.
- Knox's Quality**—farm and garden seeds—Paramount Seed Co., Stockton, Calif.
- Lago**—garden seeds—F. Lagomarsino & Sons, Sacramento, Calif.
- Landreths'**—garden seeds—D. Landreth Seed Co., Bristol, Pa.
- Leonard's Seeds**—Leonard Seed Co., Chicago, Ill.
- Lilly's**—seeds—Chas. H. Lilly Co., Seattle, Wash.
- Lion Brand**—red clover seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Loechner**—vegetable, flower, grass and field seeds—Loechner & Co., Inc., New York, N. Y.

- Lone Star**—bulbs—American Bulb Co., Chicago, Ill.
- McCullough's Seeds**—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- M**—field seeds—Ed. F. Mangelsdorf & Bro., St. Louis, Mo.
- Marvelawn**—grass seed—Page Seed Co., Greene, N. Y.
- Master Farmer**—farm and garden seeds—Farmer Seed & Nursery Co., Faribault, Minn.
- Maybell Pure**—field seeds—Ross Seed Co., Louisville, Ky.
- Meeters**—onion sets—Meeters Inc., Lansing, Ill.
- Mile High**—seeds—Grand Junction Seed Co., Grand Junction, Colo.
- Milford**—grass seed—F. H. Woodruff & Sons, Milford, Conn.
- Milford Green**—lawn seed mixture—F. H. Woodruff & Sons, Milford, Conn.
- "Nasiona"**—seeds—"Nasiona," Danzig.
- Never Die**—lawn grass seed—D. Landreth Seed Co., Bristol, Pa.
- Newday**—farm seeds—Newday Seeds, Inc., Fargo, N. D.
- Old English**—lawn seed—Philadelphia Seed Co., Philadelphia, Pa.
- Old English**—flower seeds—Kelway & Son (1933) Ltd., Langport, England.
- Old Homestead**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.
- O & M**—field, garden, lawn seeds and seed grains—O & M Seed Co., Green Springs, Ohio.
- Oriole**—field and bird seeds—Wm. G. Scarlett & Co., Baltimore, Md.
- Osco**—brand seeds—Ouren Seed Co., Council Bluffs, Iowa.
- Our Seeds Grow Friends**—seeds—Washburn-Wilson Seed Co., Moscow, Idaho.
- P**—seeds—A. S. Paterson & Co., Ltd., Dunedin, New Zealand.
- Paramount**—lawn seed—Garfield Williamson, Inc., New York, N. Y.
- Paramount**—field and garden seeds—Paramount Seed Co., Stockton, Calif.
- Par Four**—lawn seed—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Paseco**—seed corn—Page Seed Co., Greene N. Y.
- Pedigree Seeds**—seeds—D. Landreth Seed Co., Bristol, Pa.
- Pine Tree**—farm seeds—Albert Dickinson Co., Chicago, Ill.
- Platte**—seeds—Nebraska Seed Co., Omaha, Neb.
- Purseed**—seeds—Blamberg Bros., Inc., Baltimore, Md.
- P—WSCO**—garden seeds—Pieters-Wheeler Seed Co., Gilroy, Calif.
- Quaker**—field seeds—Philadelphia Seed Co., Philadelphia, Pa.
- Radway's Central Park**—lawn seed—Radway-McCullough Seeds, Inc., New York, N. Y.
- Radway's Tested Seeds**—Radway-McCullough Seeds, Inc., New York, N. Y.
- Reliable**—timothy seed—J. M. Schultz Seed Co., Dieterich, Ill.
- Royal Quality**—field and grass seeds—Rudy-Patrick Seed Co., Kansas City, Mo.
- Santa Barbara**—seed beans—McCrea Seed Co., Santa Barbara, Cal.
- Sealed Color-Tru**—tomato seed—Haven Seed Co., Santa Ana, Calif.
- Security**—field seeds—Minneapolis Seed Co., Minneapolis, Minn.
- Seeds That Grow**—W. Atlee Burpee Co., Philadelphia, Pa.
- Seeds Which Succeed**—seeds—D. Landreth Seed Co., Bristol, Pa.
- Sickle**—seed—I. L. Radwaner Seed Co., New York, N. Y.
- Sioux**—field, garden and flower seeds—Sioux City Seed Co., Sioux City, Iowa.
- Six Green Stripes**—blue grass seed—Nebraska Seed Co., Omaha, Nebr.
- Solar Brand**—field seeds—Henry Hirsch & Sons, Toledo, Ohio.
- Soo-Bred**—bantam sweet corn—Sioux City Seed Co., Sioux City, Ia.
- S & S**—field seeds—Shuler & Smoak, Orangeburg, S. C.
- Stork**—field seeds—Minneapolis Seed Co., Minneapolis, Minn.
- Suburban**—lawn seed—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Suhr's Seed Sure Success**—garden seeds—E. Suhr Co., New York, N. Y.
- Sunnybrook**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Sunshline**—farm and garden seeds—Dakota Improved Seed Co., Mitchell, S. D.
- Super Regame**—cauliflower seed—A. Hansen, Kastrup, Denmark.
- Tiger**—red clover seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Turfmaker**—lawn seed mixture—F. H. Woodruff & Sons, Milford, Conn.
- Universal**—grass seed—Garfield Williamson, Inc., New York, N. Y.
- Utryit**—seeds—The Nebraska Seed Co., Omaha, Nebr.
- Value Brand**—field seeds—Henry Hirsch & Sons, Toledo, Ohio.
- Ver-E-Best**—seeds—Market Gardeners' Seed Co., Cincinnati, Ohio.
- Village Green**—lawn grass mixtures—Duryea Seed Co., Inc., New York, N. Y.
- Wab**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Waller's**—flower seeds—Waller-Franklin Seed Co., Guadalupe, Cal.
- Washington Park**—lawn seed—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Wolf**—red clover seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Woodco**—lawn seed mixture and grass seed—F. H. Woodruff & Sons, Milford, Conn.
- Woodland Path Shady**—lawn seed—J. M. McCullough's Sons Co., Cincinnati, O.
- XXXX**—seeds—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Ye Olde Copenhagen Market**—a Copenhagen market cabbage seed—Hjalmar Hartmann & Co., Copenhagen, Denmark.
- Yorkshire Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.

## ALLIED LINES

- AAZ Special**—zinc oxide seed treatment—Rohm & Haas Co., Philadelphia, Pa.
- Acme**—arsenate of lead, arsenate of zinc, bordeaux mixture, calcium arsenate, lime sulphur, paris green, spray soap, insecticides, poultry lice killers—Acme White Lead and Color Works, Detroit, Mich.
- Acme**—mole traps—C. E. Grelle, Portland, Ore.
- Agate**—seed scale—Henry Troemner, Philadelphia, Pa.
- Agri-Pax**—insecticide—Morris B. Reade, Inc., Belleville, N. J.
- All Round Spray**—insecticide—Acme White Lead & Color Works, Detroit, Mich.
- Androck**—plant supports—Michigan Wire Goods Co., Niles, Mich.
- Annia Germ**—fumigant insecticide—Douglas Chem. & Sup. Co., Kansas City, Mo.

- Ant Gas**—ant exterminator—Hammond Paint & Chemical Co., Beacon, N. Y.
- Ant Kill**—pest exterminator—Acme White Lead & Color Works, Detroit, Mich.
- Aphis Spray**—insecticide—Acme White Lead & Color Works, Detroit, Mich.
- Aristocrat**—seed bags—Miller, Tompkins & Co., East Rutherford, N. J.
- Awine**—pyrethrum spray—Andrew Wilson, Inc., Springfield, N. J.
- Bait-M**—insecticide bait—Acme White Lead & Color Works, Detroit, Mich.
- Banner**—poultry feed—Ouren Seed Co., Council Bluffs, Iowa.
- Banner**—root cutters—O. E. Thompson & Sons, Ypsilanti, Mich.
- Bartlett**—pruning tools—Bartlett Mfg. Co., Detroit, Mich.

- Bean Beetle Dust**—insecticide—Acme White Lead & Color Works, Detroit, Mich.
- Bemis-A**—cotton seamless bags—Bemis Bro. Bag Co., St. Louis, Mo.
- Bemis Special**—threads—Bemis Bro. Bag Co., St. Louis, Mo.
- Bird Neponset**—flower pots, covers and earth bands—Bird & Son, Inc., East Walpole, Mass.
- Black Arrow**—insecticide—McCormick & Co., Baltimore, Md.
- Black Leaf 40**—insecticide, poultry lice killer, worm remedy and dog repellent—Tobacco By-Products & Chemical Corp., Louisville, Ky.
- Bor-tox**—boring insect control—Andrew Wilson, Inc., Springfield, N. J.
- Brown**—bag filling machine—Brown Bag Filling Machine Co., Fitchburg, Mass.
- Brownie**—seed bags—Miller, Tompkins & Co., East Rutherford, N. J.
- Buhler**—patented vibrationless sieve drives—S. Howes Co., Silver Creek, N. Y.
- Bull Dog**—seed bags—Miller, Tompkins & Co., East Rutherford, N. J.
- Bull's Eye Catalog Book**—paper stock—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- C-A**—chicken mite killer—C-A Wood Preserver Co., St. Louis, Mo.
- Camel**—tags and boxes—Campbell Box & Tag Co., South Bend, Ind.
- Cascade**—vertical seed mixers—S. Howes Co., Silver Creek, N. Y.
- Cattle Comfort**—stock spray—Hammond Paint & Chemical Co., Beacon, N. Y.
- Celophane**—seed enclosure—I. L. Radwaner Seed Co., New York, N. Y.
- Ceresan—New Improved**—wheat, oats and barley seed treatment—Bayer-Semesan Co., Wilmington, Del.
- Champion**—peanut pickers—Ellis Keystone Agri. Works, Pottstown, Pa.
- Champion**—scoops—Michigan Wire Goods Co., Niles, Mich.
- Champion**—weighing and filling machines—S. Howes Co., Silver Creek, N. Y.
- Clark's**—parapin wax, melters, dip tanks—Walter E. Clark & Son, Milford, Conn.
- Clute**—air-lift elevators and fruit graders—Oliver Mfg. Co., St. Louis, Mo.
- Collie**—seed bags—Miller, Tompkins & Co., East Rutherford, N. J.
- Compound Lever**—tree trimmer—Bartlett Mfg. Co., Detroit, Mich.
- Coposil**—spray dust product—Grasselli Chem. Co., Cleveland, O.
- Cornell**—feeds—Blamberg Bros., Inc., Baltimore, Md.
- Cuproicide**—red copper oxide seed treatment—Rohm & Haas Co., Philadelphia, Pa.
- Dawg-Gone**—dog repellent—Acme White Lead & Color Works, Detroit, Mich.
- Deridust**—insecticide—S. B. Penick & Co., New York, N. Y.
- Derispray**—insecticide—S. B. Penick & Co., New York, N. Y.
- Disbrow Seal Brand**—seed packets and bags—Disbrow Mfg. Co., Newark, N. J.
- Dixie**—chick feeder—Hoeft & Co., North Chicago, Ill.
- Do-All Green Dust**—insecticide, fungicide—Hammond Paint & Chem. Co., Beacon, N. Y.
- Dog Skat**—tree and shrub protector—Hammond Paint & Chem. Co., Beacon, N. Y.
- Dogzoff**—dog repellent—Bohlender Plant Chemicals, Inc., Tippecanoe City, Ohio.
- Driconure**—fertilizer—Atkins & Durbrow, Inc., New York, N. Y.
- Du Bay 738**—soil disinfectant for bottom rot of lettuce—Bayer-Semesan Co., Wilmington, Del.
- Dutox**—non-arsenical insecticide—Grasselli Chemical Co., Cleveland, Ohio.
- Eclipse**—lawn mowers—Eclipse Lawn Mower Co., Prophetstown, Ill.
- Ellis Champion**—grain threshers—Ellis Agricultural Works, Pottstown, Pa.
- Eureka**—seed cleaners, separators and graders, lawn seed mixers, scarifiers and other seed processing machinery—S. Howes Co., Silver Creek, N. Y.
- Everlastic**—glazing bedding putty—Hammond Paint & Chemical Co., Beacon, N. Y.
- Exact Weight**—scales—Exact Weight Scale Co., Columbus, Ohio.
- Floragard**—insecticide—Grasselli Chemical Co., Cleveland, Ohio.
- Fly-Away**—spray—Hammond Paint & Chemical Co., Beacon, N. Y.
- Foliafume**—insecticide—S. B. Penick & Co., New York, N. Y.
- For-Get-Me-Not**—natural and colored raffia—Julius Loewith, Inc., New York, N. Y.
- Form-O-Fume**—formaldehyde dust—Rohm & Haas Co., Philadelphia, Pa.
- Four-In-One**—percentage scale—Seed Trade Reporting Bureau, Chicago, Ill.
- Fumigato**—fumigant—Douglas Chemical & Supply Co., Kansas City, Mo.
- Fung-O**—liquid fungicide—Andrew Wilson, Inc., Springfield, N. J.
- Fun-L-Fill**—sprayers—Dobbins Mfg. Co., North St. Paul, Minn.
- Garden Guard**—insecticide and fungicide—Acme White Lead & Color Works, Detroit, Mich.
- Garden Volk**—spray and dust product—Grasselli Chemical Co., Cleveland, Ohio.
- Gardex**—garden tools—Gardex, Inc., Michigan City, Ind.
- Gem**—chick waterer—Hoeft & Co., North Chicago, Ill.
- Germaco**—hotkaps—Germain Seed & Plant Co., Los Angeles, Calif.
- Globe**—feeds—Albert Dickinson Co., Chicago, Ill.
- G & O**—sprayers, insecticides, disinfectants, egg preservatives, chicken mite killers, crow repellents, fertilizers, fly repellents, fumigants, fungicides, pest exterminators, plant foods, rabbit supplies, stock remedies, mole and animal traps, weed destroyers—Goulard & Olena, Inc., New York, N. Y.
- Gold Leaf**—tobacco powder—Tobacco By-Products & Chemical Corp., Louisville, Ky.
- GPM**—peat moss—Atkins & Durbrow, Inc., New York, N. Y.
- Grape and Rose Dust**—fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Grasselli**—Bordeaux Mixture—Grasselli Chem. Co., Cleveland, Ohio.
- Grasselli**—arsenate of lead—Grasselli Chem. Co., Cleveland, Ohio.
- Grasselli**—spray products—Grasselli Chemical Co., Cleveland, Ohio.
- Grip-Lock**—bag seal—E. J. Brooks Co., Newark, N. J.
- Growmore**—chick feed—The Ackerman Company, Lima, Ohio.
- Grub-O**—lawn grub proofing compound—Andrew Wilson, Inc., Springfield, N. J.
- Hammond's**—insecticides, fungicides, paints and putties—Hammond Paint & Chemical Co., Beacon, N. Y.
- Hammond's Copper Solution**—fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Heco**—envelopes—Heco Envelope Co., Chicago, Ill.
- Henry Troemner**—weighing apparatus—Henry Troemner, Philadelphia, Pa.
- Herbst**—bag cleaners—S. Howes Co., Silver Creek, N. Y.
- Hi-Lo-Fosphate**—for available phosphates—Urbana Laboratories, Urbana, Ill.
- Hitox**—insecticide—Hitox Products Corp., New York, N. Y.
- Hoffer Test**—for nitrogen and potash—Urbana Laboratories, Urbana, Ill.
- Hofmann**—plant food distributor—Salem Tool Co., Salem, Ohio.
- Hofmann, Jr.**—plant food distributor—Salem Tool Co., Salem, Ohio.
- Hofmann, Sr.**—plant food distributor—Salem Tool Co., Salem, Ohio.

- Horicum Lime**—sulphur concentrate and fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Hotkaps**—plant protectors—Germain Seed & Plant Co., Los Angeles, Cal.
- Howes**—equipment for seed houses—S. Howes Co., Silver Creek, N. Y.
- Hudson**—sprayers—H. D. Hudson Mfg. Co., Chicago, Ill.
- Hudson Kleen-EZY**—poultry equipment—H. D. Hudson Mfg. Co., Chicago, Ill.
- Humogerm**—inoculant—Kalo Inoculant Co., Quincy, Ill.
- H. W. K.**—weed killer—Hammond Paint & Chemical Co., Beacon, N. Y.
- Hydro-Air**—power sprayer—Andrew Wilson, Inc., Springfield, N. J.
- Hydroxicide**—insecticide—Mechling Bros. Chem. Co., Camden, N. J.
- Hyper-Humus**—plant food and fertilizer—Hyper-Humus Co., Philadelphia, Pa.
- Interstate**—feeds—Interstate Seed & Grain Co., Fargo, N. D.
- Invincible**—bean polishers and bean cleaning and grading equipment—S. Howes Co., Silver Creek, N. Y.
- Iron Age**—garden tools—Ellis Keystone Agricultural Works, Pottstown, Pa.
- Japtox**—Japanese bean beetle destroyer—Mechling Bros. Chem. Co., Camden, N. J.
- Jay Bee**—feed grinders, feed mixers, hammer mills, roughage grinders, oat crushers, grain mills, alfalfa mills, portable mills, corn crackers, batch mixers, molasses mixers, poultry feed machinery—J. B. Sedberry, Inc., Utica, N. Y.
- Kalite-Dust**—insecticide—The Kalo Company, Quincy, Ill.
- Kalo**—dry insecticide—The Kalo Company, Quincy, Ill.
- Kalo**—poultry and livestock remedies—The Kalo Company, Quincy, Ill.
- Kalobait**—pest exterminator (for worms and grasshoppers)—Kalo Co., Quincy, Ill.
- Kalo Dairy Ration**—for cows—The Kalo Company, Quincy, Ill.
- Kalo Spray**—insecticide—The Kalo Company, Quincy, Ill.
- Kalo Stock Dip**—The Kalo Company, Quincy, Ill.
- Kaloil**—pyrethrum non-poisonous spray, insecticide—The Kalo Company, Quincy, Ill.
- Kalo Wormoil**—hog remedy—The Kalo Company, Quincy, Ill.
- Kalo Wormout Tablets**—sheep and goat remedy—The Kalo Company, Quincy, Ill.
- Kerosene Emulsion**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Keystone**—circular wood saws and fodder cutters—Ellis Keystone Agricultural Works, Pottstown, Pa.
- Keystone**—fish oil spray soaps—James Good, Inc., Philadelphia, Pa.
- Killal**—insecticide—Kalo Company, Quincy, Ill.
- Kleenup Oil**—for control of scale, red mite and leaf roller—Grasselli Chemical Co., Cleveland, Ohio.
- Kleenup-Tar Oil Emulsion**—spray and dust product—Grasselli Chem. Co., Cleveland, Ohio.
- Klen-O-Cil**—spray and dust product—Grasselli Chem. Co., Cleveland, Ohio.
- Lac-Hi-Potash**—for replaceable potassium—Urbana Laboratories, Urbana, Ill.
- Lawnette**—seeder and fertilizer spreader—O. E. Thompson & Sons, Ypsilanti, Mich.
- Laymore**—poultry feed—The Ackerman Co., Lima, Ohio.
- Lethane 420**—insecticide—Rohm & Haas Co., Philadelphia, Pa.
- Lethane Junior**—insecticide—Rohm & Haas Co., Philadelphia, Pa.
- Lilly's**—fertilizers and dairy feeds—Chas. H. Lilly Co., Seattle, Wash.
- Liquid Slug Shot**—insecticide—Hammond Paint & Chem. Co., Beacon, N. Y.
- Little Giant**—mole traps—Michigan Wire Goods Co., Niles, Mich.
- Little Wonder**—hedge trimmer—Detco Mfg. Co., Oaks (Montgomery Co.) Penna.
- London Purple**—insecticide—Acme White Lead & Color Works, Detroit, Mich.
- Loro**—insecticide—Grasselli Chemical Co., Cleveland, Ohio.
- Lyric**—mixed bird seed—Philadelphia Seed Co., Philadelphia, Pa.
- Mainstay**—cotton twine for closing bags by hand sewing—Bemis Bro. Bag Co., St. Louis, Mo.
- Manganar Rose Dust**—fungicide—Grasselli Chemical Co., Cleveland, Ohio.
- Mechling's Scale Oil**—insecticide—Mechling Bros. Chem. Co., Camden, N. J.
- Miller's**—dog food—Battle Creek Dog Food Co., Battle Creek, Mich.
- Mix**—bean sorters—S. Howes Co., Silver Creek, N. Y.
- Modern Form**—order blanks—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- Moe's Line**—poultry supplies and garden tools, fertilizer spreader and seeder—Hoeft & Co., Inc., North Chicago, Ill.
- Morecorn**—seed corn sorters and graders—Universal Hoist & Mfg. Co., Cedar Falls, Iowa.
- M-S-R Dusting Sulphur**—rose dust—Acme White Lead & Color Works, Detroit, Mich.
- Mt. Beacon**—green shading—Hammond Paint & Chemical Co., Beacon, N. Y.
- Naptoside**—fumigant, insecticide—Hammond Paint & Chem. Co., Beacon, N. Y.
- Need Envelopes? Phone Hecc!**—Hecc Envelope Co., Chicago, Ill.
- Neponset**—flower pots, flower pot covers and earth bands—Bird & Son, Inc., East Walpole, Mass.
- Neva-Fale**—plant spray—Morris B. Read, Inc., Belleville, N. J.
- New Day**—feeds—Newday Seeds, Inc., Fargo, N. D.
- Nico-Fume**—liquid, paper and powder insecticide—Tobacco By-Products & Chemical Corp., Louisville, Ky.
- Nicotine Soap**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Nicotine Poultry Delouser**—lice killer—Acme White Lead & Color Works, Detroit, Mich.
- Nitragin**—soil and legume inoculator—The Nitragin Co., Inc., Milwaukee, Wis.
- No Crow**—crow repellent—Hammond Paint & Chem. Co., Beacon, N. Y.
- Nod-O-Gen**—inoculant—Albert Dickinson Co., Chicago, Ill.
- Nu Green**—fungicide for brown patch of grasses control—Bayer-Semesan Co., Wilmington, Del.
- Nu Rexform**—codling moth & other insect control—Grasselli Chem. Co., Cleveland, Ohio.
- Nursery Volek**—spray and dust product—Grasselli Chem. Co., Cleveland, Ohio.
- O. K.**—plant spray—Andrew Wilson, Inc., Springfield, N. J.
- OKPL**—poultry litter—Atkins & Durbrow, Inc., New York, N. Y.
- Old English Lawn Klenser**—Japanese beetle exterminator—Philadelphia Seed Co., Philadelphia, Pa.
- Old English**—liquid putty—Hammond Paint & Chemical Co., Beacon, N. Y.
- Old English**—sheep manure—Philadelphia Seed Co., Philadelphia, Pa.
- Old English**—turf builder and plant food—Philadelphia Seed Co., Philadelphia, Pa.
- Oliver**—gravity separators and portable electric blowers—Oliver Mfg. Co., St. Louis, Mo.
- Original**—greenhouse white paint—Hammond Paint & Chem. Co., Beacon, N. Y.
- P. A. C. 6% Formaldehyde Dust**—soil sterilizer—Grasselli Chemical Co., Cleveland, Ohio.
- Pacific**—goldfish and supplies—Pacific Goldfish Farm, Westminster, Calif.
- Paragon**—sprayers—Campbell-Hausfeld Co., Harrison, Ohio.
- Patch**—budder—Walter E. Clark & Son, Milford, Conn.

- Peerless**—gunning asbestos asphaltum—Hammond Paint & Chemical Co., Beacon, N. Y.
- Perfection**—plant markers and stakes—S-W Supply Co., Girard, Kansas.
- Pest-Kit**—kit containing material to combat insects and diseases—Hammond Paint & Chemical Co., Beacon, N. Y.
- Pictorial**—cover stock—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- Pinaveras**—disinfectant—Morris B. Reade, Inc., Belleville, N. J.
- Plantspur**—fertilizer—Garfield Williamson, Inc., New York, N. Y.
- Porter**—bag seals—Porter Safety Seal Co., Chicago, Ill.
- Production English Finish Book**—paper stock—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- Production Super Book**—paper stock—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- Production Super**—cover stock—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- Protecto-Seal**—bag seals—Protecto-Seal Co., Buffalo, N. Y.
- Purgrain**—pigeon, poultry and rabbit feeds and pigeon health grit—Philadelphia Seed Co., Philadelphia, Pa.
- Pyrote**—non poisonous double acting insecticide—Mechling Bros. Chemical Co., Camden, N. J.
- Pysol**—McCormick & Co., Baltimore, Md.
- Quiek-Seal**—envelope sealing machine—Schuyler Arnold, Coldwater, N. Y.
- Racine**—fanning mill type seed cleaners—S. Howes Co., Silver Creek, N. Y.
- Reade's**—horticultural chemicals and fertilizer—Morris B. Reade, Inc., Belleville, N. J.
- Red A**—pyrethrum powder and liquid soap—McCormick & Co., Baltimore, Md.
- Red Arrow**—insecticide—McCormick & Co., Baltimore, Md.
- Reddiek**—mole trap—Michigan Wire Goods Co., Niles, Mich.
- Red Star Brand**—raffia—McHutchison & Co., New York, N. Y.
- Reliable**—poultry supplies—Reliable Incubator & Brooder Co., Quincy, Ill.
- Rhodono**—plant food—Garfield Williamson, New York, N. Y.
- Rhody-Life**—Andrew Wilson, Inc., Springfield, N. J.
- Rich-or-Poor**—for soil acidity—Urbana Laboratories, Urbana, Ill.
- Rid-O-Rat**—non poisonous liquid rat exterminator—Andrew Wilson, Inc., Springfield, N. J.
- Root Quality**—bee supplies—A. I. Root Co., Medina, Ohio.
- Rose Dust**—fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Rotofume**—liquid Rotenone insecticide—Andrew Wilson, Inc., Springfield, N. J.
- Steep**—fertilizer, plant food, fertilizer spreader and seeder—Smith Agri. Chemical Co., Columbus, Ohio.
- Salem-18", 24" and 36"**—fertilizer spreader and compost maker—Salem Tool Co., Salem, Ohio.
- Seale-O**—dormant spray—Andrew Wilson, Inc., Springfield, N. J.
- Seal Brand**—seed packets and bags—Dissbrow Mfg. Co., Newark, N. J.
- Seals That Seal**—seals—Porter Safety Seal Co., Chicago, Ill.
- Seedburo Quality**—grain, seed and flour grading equipment—Seed Trade Reporting Bureau, Chicago, Ill.
- Self-Serve**—seed packet display racks—Davis Metal Fixture Co., Lansing, Mich.
- Semesan**—seed treatment for seeds, bulbs and brown patch of grasses, also for damping off of seedlings—Bayer-Semesan Co., Wilmington, Del.
- Semesan Bell-New Improved**—instantaneous dip for seed white and sweet potatoes—Bayer-Semesan Co., Wilmington, Del.
- Semesan, Jr.—New Improved**—field and sweet corn seed treatment—Bayer-Semesan Co., Wilmington, Del.
- Sheep's Head Brand**—sheep and cattle manure, fertilizer—Natural Quano Co., Aurora, Ill.
- Sho-Gro**—seed germinators—Seed Trade Reporting Bureau, Chicago, Ill.
- Shoulder**—scoop—Michigan Wire Goods Co., Niles, Mich.
- Slug Shot**—insecticide and fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Soil-O-Gas**—soil fumigant—Andrew Wilson, Inc., Springfield, N. J.
- Sorbex**—peat moss—Atkins & Durbrow, Inc., New York, N. Y.
- Specific**—gravity separators, cleaners and graders—Sutton, Steele & Steele, Dallas, Texas.
- Star**—poultry fountain—Hoeft & Co., North Chicago, Ill.
- Star**—pocket gopher trap—Michigan Wire Goods Co., Niles, Mich.
- Sterling**—feeds—Northrup, King & Co., Minneapolis, Minn.
- Stimugerm**—jelly and humus seed inoculator—Stimuplant Laboratories, Inc., Long Island City, N. Y.
- Stimuplant**—plant food—Stimuplant Laboratories, Inc., Long Island City, N. Y.
- Storm King**—greenhouse white paint and white glazing compound—Hammond Paint & Chemical Co., Beacon, N. Y.
- Sulforon**—fungicide—Grasselli Chemical Co., Cleveland, Ohio.
- Superbilt**—sprayers and dusters—Dobbins Mfg. Co., North St. Paul, Minn.
- Sure Shot**—concentrated pyrethrum soap spray—Hammond Paint & Chemical Co., Beacon, N. Y.
- Tetrafume**—rat exterminator—Douglas Chemical & Supply Co., Kansas City, Mo.
- Thompson**—fertilizer spreaders and seeders—O. E. Thompson & Sons, Ypsilanti, Mich.
- Thrip Juice**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Tri-Tox-Cide**—thrips dust insecticide—Andrew Wilson, Inc., Springfield, N. J.
- Trowbridge**—grafting wax—Walter E. Clark & Son, Milford, Conn.
- True to Type**—seed pockets—Stecher-Traung Lithograph Corp., Rochester, N. Y.
- 2% Ceresan**—disinfectant for cotton, narcissus and peas—Bayer-Semesan Co., Wilmington, Del.
- 2 Way Spray**—insecticide and fungicide—Acme White Lead & Color Works, Detroit, Mich.
- Union**—garden tools—Union Fork & Hoe Co., Columbus, Ohio.
- Urbana Culture**—legume inoculator—Urbana Laboratories, Urbana, Ill.
- Visinet**—bags for fruit and vegetables—Bemis Bro. Bag Co., St. Louis, Mo.
- Wedo**—fertilizer and plant food—Smith Agri. Chem. Co., Columbus, Ohio.
- Weedex**—weed killer—James Good, Inc., Philadelphia, Pa.
- Wilson's**—dusting sulphur, lawn fertilizer, liquid insecticide soap, summer fruit fungicide, weed killer, tree wound paint, worm eradicator dust, high pressure spray hose, tree food, superbilt fertilizer distributor, estate power sprayer, dust gun—Andrew Wilson, Inc., Springfield, N. J.
- Windobag**—seed enclosure—I. L. Radwaner Seed Co., New York, N. Y.
- Wizard**—sheep and cattle manure—Pulverized Manure Co., Chicago, Ill.
- Woodco**—lawn food—F. H. Woodruff & Sons, Milford, Conn.
- XX Superior Brand**—raffia—McHutchison & Co., New York, N. Y.
- Yankee Mum**—manure—Garfield Williamson, Inc., New York, N. Y.
- X. L.**—lawn sprinklers—X. L. Mfg. Co., Chicago, Ill.

*Unbreakable!*

## Bird Neponset Growing Pots

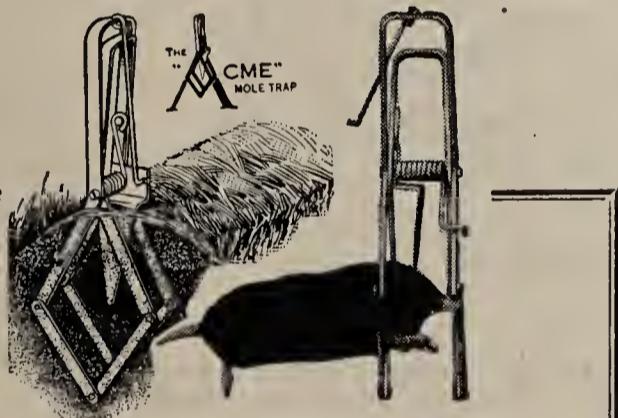
### Reduce Expenses!

Grow your plants in the same pots in which they will be delivered to your customer. Eliminate transplanting expense. Tests prove that Neponset Growing Pots encourage maximum growth. Plants grown in them require less frequent watering.

Made of treated waterproof paper.

The Neponset Plant Box for growing and shipping one dozen plants is Bird's latest contribution to horticulture.

**BIRD & SON, inc.**  
EAST WALPOLE, MASS.



**THE ACME MOLE TRAP IS SUPERIOR IN ALL RESPECTS**

**Most Efficient Mole Trap  
on the Market**

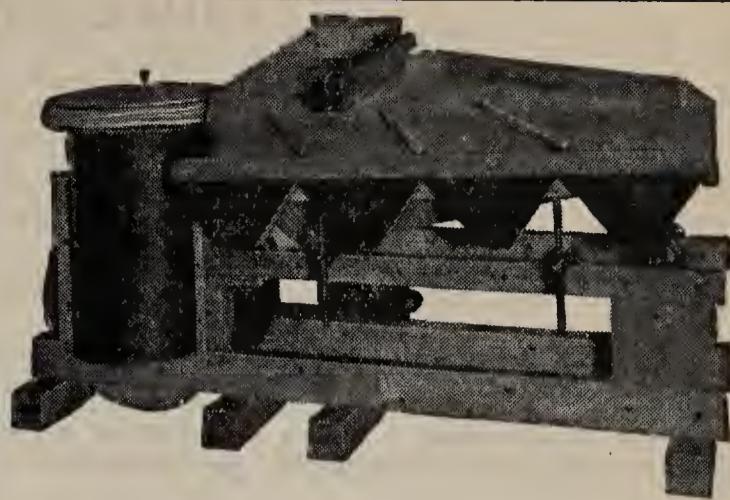
**Highly Endorsed Wherever Used  
Retails at \$2.00 Each and Worth It!**

Get acquainted with a mole trap that you will enjoy offering and recommending to your trade.

*Write for Prices, Circulars, Etc.*

**C. E. GRELLE, Manufacturer**  
GREEN HILLS, PORTLAND, ORE.

**ROMAINE B. WARE, BRIDGETON, N. J.**  
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**"OLIVER GRAVITY"**  
SEPARATORS Have  
Gained First Place in  
Popularity

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We are exclusive manufacturers of  
**Clute Air-Lift Elevators**  
and  
**Clute Fruit Graders**

(Patented)



"OLIVER" Portable  
Electric Blowers have a  
place in every seed  
cleaning plant

We Also Manufacture  
**Bag Cleaners**

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(Since 1930)

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| 1923 Marengo Ave.      | 520 Porter St.         |
| South Pasadena, Calif. | Stuttgart, Ark.        |

**Export**

MEYER, LYRA & CO., INC.  
227 Fulton St., New York, N. Y.

## DIRECTORY SECTION

On the following pages are given the names and addresses of seed growers and wholesalers of both field and garden seeds. For manufacturers of store and warehouse supplies and merchandise for resale purposes, etc., see pages 122 and 162.

By this method of classification it is easy to locate the growers or wholesalers in any particular state or section of the country and the manufacturer or distributor of anything used by the seed dealer in the conduct of his own business or sold to his patrons.

Every effort has been made, in compiling this directory, to make it as complete as possible. The names and the lines handled were supplied by the firms listed in response to a general invitation to the trade.

The publication of this book has been made possible by the support and co-operation of the firms listed in bold face type and whose advertising appears on the pages as indicated by the numbers following their names.

**In cases where firms specialize in the handling of a certain item this fact is indicated by the commodity appearing in parenthesis after the company's name.**

### WHOLESALE FIELD SEEDS

#### **ALABAMA**

Birmingham Seed Co.  
Birmingham, Ala.  
Poyner Seed Co.  
Dothan, Ala.  
Wind & Co., I.  
Huntsville, Ala.  
Van Antwerp Seed Co.  
Mobile, Ala.

#### **ARIZONA**

Buckeye Seed & Feed Co.  
Buckeye, Ariz.  
Johnson-Pearce Co.  
Mesa, Ariz.  
Arizona Feed & Seed Association  
Phoenix, Ariz.  
Capital Fuel & Feed Co.  
Phoenix, Ariz.  
Liefgreen Seed Co.  
Phoenix, Ariz.  
Quick Seed & Feed Co.  
Phoenix, Ariz.  
Alfalfa Seed & Lumber Co.  
Yuma, Ariz.  
Blalack Feed & Seed Co.  
Yuma, Ariz.  
Sanguinetti, E. F.  
Yuma, Ariz.  
Whitman Seed Co.  
Yuma, Ariz.  
Yuma County Farm Bureau Marketing  
Association  
Yuma, Ariz.

#### **ARKANSAS**

Lee, Arthur G.  
Fort Smith, Ark.  
Bass-Isgrig Seed Co.  
Little Rock, Ark.  
Cochran Co., H. K.  
Little Rock, Ark.  
Texarkana Seed House  
Texarkana, Ark.  
Word Seed Store  
Texarkana, Ark.

#### **CALIFORNIA**

Bomberger Seed Co.  
Berkeley, Calif.  
Cuff-Archieas Seed Co. (Sesbania and Me-  
lilotus Indica)  
Brawley, Calif.  
Loomis, Jay  
Hemet, Calif.  
Aggeler & Musser Seed Co.  
Los Angeles, Calif.  
**Germain Seed & Plant Co.**  
Los Angeles, Calif.  
(See Adv. on Page 161)  
Smith & Co., F. F.  
Sacramento, Calif.  
**Ferry-Morse Seed Co.**  
San Francisco, Calif.  
(See Adv. on Page 76)  
Sevin-Vincent Seed Co.  
San Francisco, Calif.  
Volkmann & Co., C. M.  
San Francisco, Calif.

#### **Paramount Seed Co.**

##### **Stockton, Calif.**

(See Adv. on Page 23)

#### **CANADA**

McKenzie Co., Ltd., A. E.  
Brandon, Man., Canada.  
Bruce & Co., Ltd., John A.  
Hamilton, Ont., Canada.  
Hogg & Lytle, Ltd.  
Oakwood, Ont., Canada.  
McDonald & Sons, Ltd., Kenneth  
Ottawa, Ont., Canada.  
Ewing, The Wm. Co., Ltd.  
Montreal, Que., Canada.  
Canada Seed Co., Ltd., The  
Toronto, Ont., Canada.  
Goodall, Ltd., James  
Toronto, Canada.  
Keith & Sons, Geo.  
Toronto, Canada.  
Rennie Seeds, Wm., Ltd.  
Toronto, Canada.  
**Steele, Briggs Seed Co., Ltd.**  
Toronto, Canada

(See Adv. on Page 35)

#### **COLORADO**

Barteldes Seed Co.  
Denver, Colo.  
Rocky Mountain Seed Co.  
Denver, Colo.  
Western Seed Co.  
Denver, Colo.  
Farmers Supply Co.  
Durango, Colo.

#### **Grand Junction Seed Co.**

##### **Grand Junction, Colo.**

(See Adv. on Page 71)  
Strain Bros.  
Lamar, Colo.  
James, R. H.  
Rocky Ford, Colo.

#### **CONNECTICUT**

Cadwell & Jones  
Hartford, Conn.

#### **Woodruff & Sons, F. H.**

Milford, Conn.  
(See Adv. on Front Cover)

Platt Co., Inc., The Frank S.  
New Haven, Conn.

#### **Comstock, Ferre & Co.**

Wethersfield, Conn.

(See Adv. on Page 91)

#### **FLORIDA**

Shreve Seed Co.  
Chipley, Fla.  
Security Feed & Seed Co.  
Tampa, Fla.

#### **GEORGIA**

#### **Athens Seed Co.**

Athens, Ga.

(See Adv. on Page 57)

Rowland Co., The

Athens, Ga.

Walton Seed Co. (Cowpeas and Soybeans)

Augusta, Ga.

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Settle & Robison (Cowpeas)  
Jackson, Ga.  
Beechwood Seed Farms  
Rome, Ga.  
Snelson Seed Co.  
Savannah, Ga.  
Barnett-Paschal Co.  
Washington, Ga.

**IDAHO**

**Idaho Grimm Alfalfa Seed Growers Assn.**  
**Blackfoot, Idaho**  
(See Adv. on Page 13)  
Central Coal & Seed Co.  
Boise, Idaho  
Union Seed & Fuel Co.  
Boise, Idaho  
Buhl Seed & Grain Co.  
Buhl, Idaho  
Pioneer Seed & Grain Co.  
Burley, Idaho  
Lilly Seed Co.  
Caldwell, Idaho  
Duthie Co.  
Lewiston, Idaho  
Means Co., Mark  
Lewiston, Idaho  
Moscow-Idaho Seed Co.  
Moscow, Idaho  
Intermountain Seed Co.  
Twin Falls, Idaho

**ILLINOIS**

Funk Bros. Seed Co.  
Bloomington, Ill.  
Vollbracht Co., Wm.  
Camp Point, Ill.  
Allied Seed Co.  
Chicago, Ill.  
American Field Seed Co.  
Chicago, Ill.  
**Dickinson Co., Albert**  
**Chicago, Ill.**  
(See Adv. on Page 132)  
**Farmers National Grain Corporation**  
Chicago, Ill.  
**Iroquois Seed Service**  
**Chicago, Ill.**  
(See Adv. on Page 115)  
Johnson, Inc., J. Oliver  
Chicago, Ill.  
Sun-Field Seed Service  
Chicago, Ill.  
**Schultz, J. M.**  
**Dieterich, Ill.**  
(See Adv. on Page 59)  
Keith & Son, L. J.—(Redtop)  
Fairfield, Ill.  
Ging & Co.  
Farina, Ill.  
Egyptian Seed Growers Exchange—  
(Redtop)  
Flora, Ill.  
Beebe, C. A.  
Forreston, Ill.  
**Noble Bros.**  
Gibson City, Ill.  
**Morris Grain & Seed Co.**  
Morris, Ill.  
Allied Seed Co.  
Peoria, Ill.  
Kelly Seed Co.  
Peoria, Ill.  
**Eber Seed Co.**  
Quincy, Ill.  
**Keller & Sons, Geo.**  
Quincy, Ill.  
**Quincy Seed Co.**  
Quincy, Ill.  
Condon Bros. Seedsman  
Rockford, Ill.  
Pratt Seed Farms (Lespedeza)  
Roseville, Ill.  
Bastien, R. F. (Cowpeas)  
Vergennes, Ill.

**INDIANA**

**Foster-Kendall Co.**  
Carmel, Ind.  
**Crabbs, Reynolds, Taylor Co.**  
Crawfordsville, Ind.

Crawfordsville Seed Co.  
Crawfordsville, Ind.  
**Heldt Co., The**  
Evansville, Ind.  
**McCarty Co., The J. A.**  
Evansville, Ind.  
**Ohio Valley Seed Co.**  
Evansville, Ind.  
**Purcell Seed Co.**  
Evansville, Ind.  
**Allied Seed Co.**  
Fort Wayne, Ind.  
**Hooton-Davis Seed Co.**  
Lebanon, Ind.  
**Scott Seed Co.**  
New Albany, Ind.  
**Meyer Grain Co.**  
South Whitley, Ind.  
**Quinlan Seed Store**  
Terre Haute, Ind.  
**Goodrich Bros. Co.**  
Winchester, Ind.

**IOWA**

**Hamilton Seed & Coal Co.**  
**Cedar Rapids, Iowa**  
(See Adv. on Page 65)  
**Council Bluffs Seed Co. (Seed Corn)**  
Council Bluffs, Iowa  
**Ouren Seed Co.**  
**Council Bluffs, Iowa**  
(See Adv. on Page 59)  
Scofield Co., Roy A.  
Council Bluffs, Iowa  
Younkerman Seed Co.  
Council Bluffs, Iowa  
**Davenport Seed Co.**  
**Davenport, Iowa**  
(See Adv. on Page 39)  
**Standard Seed Co.**  
Des Moines, Iowa  
Dubuque Seed Co.  
Dubuque, Iowa  
**Dakota Improved Seed Co.**  
**Emmetsburg, Iowa**  
(See Adv. on Page 57)  
**Northwestern Seed Co.**  
**Keokuk, Iowa**  
(See Adv. on Page 59)  
Nishna Valley Seed Co. (Seed Corn)  
Shenandoah, Iowa  
**Sioux City Seed Co.**  
**Sioux City, Iowa**  
(See Adv. on Pages 73 and 95)  
Wertz Seed Co.  
Sioux City, Iowa

**KANSAS**

Assaria Hardware Co.  
Assaria, Kan.  
**Mangelsdorf & Co., F. A.**  
Atchison, Kan.  
Frazier's Seed Store  
Coffeyville, Kan.  
**Bowman Seed Co.**  
Concordia, Kan.  
**Union Seed Warehouse**  
Kirwin, Kan.  
**Barteldes Seed Co.**  
Lawrence, Kan.  
**Northwestern Seed House**  
Oberlin, Kan.  
**Henning Seed Co.**  
Salina, Kan.  
**Salina Produce Co.**  
Salina, Kan.  
**Salina Seed Co.**  
Salina, Kan.  
**Sedgwick Alfalfa Mills**  
Sedgwick, Kan.  
**Alfalfa Valley Seed Co.**  
Stafford, Kan.  
**Coe Seed & Grain Co., D. O.**  
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**Ross Bros. Seed Co.**  
Wichita, Kan.

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Kentucky-Tennessee Sericea Assn.  
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**Cayee-Yost Co. (Lespedeza)**  
**Hopkinsville, Ky.**  
**Brent Seed Co., The C. S.**  
**Lexington, Ky.**  
 (See Adv. on Page 39)  
**Chambers Seed Co.**  
**Louisville, Ky.**  
**Hall Seed Co.**  
**Louisville, Ky.**  
**Lewis Implement & Seed Co.**  
**Louisville, Ky.**  
**Louisville Seed Co.**  
**Louisville, Ky.**  
 (See Adv. on Page 61)  
**Ross Seed Co.**  
**Louisville, Ky.**  
 (See Adv. on Page 39)  
**Watts, Owen T.**  
**Louisville, Ky.**  
 (See Adv. on Page 31)  
**Meacham, Chas. M., Jr. (Lespedeza)**  
**Morganfield, Ky.**  
**Yopp Seed Co.**  
**Paducah, Ky.**  
**Brent & Co., Inc.**  
**Paris, Ky.**  
**Spears & Sons, Woodford**  
**Paris, Ky.**  
**Spears-Kiser Co.**  
**Paris, Ky.**  
**Wilson, Jas. S.**  
**Paris, Ky.**  
**Walters & Thompson**  
**Shelbyville, Ky.**  
**Kentucky Blue Grass Seed Growers Cooperative Assn.**  
**Winchester, Ky.**  
**Mahan Co.**  
**Winchester, Ky.**

**LOUISIANA**

**Beridon, Jr., E. J.**  
**Hamburg, La.**  
 (See Adv. on Page 23)  
**Bacque Seed Co.**  
**Lafayette, La.**  
**Coco & Roy Seed Co. (White Clover)**  
**Moreauville, La.**  
**Reuter Seed Co., Inc.**  
**New Orleans, La.**  
**Kalmbach-Burckett Co., Inc.**  
**Shreveport, La.**  
**Wilson Seed Co., Lane**  
**Shreveport, La.**

**MARYLAND**

**Belt Seed Co.**  
**Baltimore, Md.**  
**Blumberg Bros., Inc.**  
**Baltimore, Md.**  
 (See Adv. on Page 23)  
**Scarlett & Co., Wm. G.**  
**Baltimore, Md.**  
 (See Adv. on Page 40)

**MASSACHUSETTS**

**Breck & Sons Corp., Jos.**  
**Boston, Mass.**  
**Dickinson Co., The Albert**  
**Boston, Mass.**  
 (See Adv. on Page 132)  
**Emerson Co., Thos. W.**  
**Boston, Mass.**  
**Ross Bros. Co.**  
**Worcester, Mass.**

**MICHIGAN**

**King & Sons, H. C.**  
**Battle Creek, Mich.**  
 (See Adv. on Page 27)  
**Brown Seed Co., Alfred J.**  
**Grand Rapids, Mich.**  
 (See Adv. on Page 11)  
**Isbell Seed Co.**  
**Jackson, Mich.**  
 (See Adv. on Page 27)  
**McLaughlin Ward & Co.**  
**Jackson, Mich.**

**MINNESOTA**

**Farmer Seed & Nursery Co.**  
**Faribault, Minn.**  
 (See Adv. on Page 115)  
**Archer-Daniels-Midland Co. (Seed Oats)**  
**Minneapolis, Minn.**  
**Dickinson Feed & Seed Co.**  
**Minneapolis, Minn.**  
**Farm Service Stores, Inc.**  
**Minneapolis, Minn.**  
**Land O'Lakes Creameries, Inc. (Sweet Clover)**  
**Minneapolis, Minn.**  
**Minneapolis Seed Co.**  
**Minneapolis, Minn.**  
 (See Adv. on Page 61)  
**Northrup, King & Co.**  
**Minneapolis, Minn.**  
 (See Adv. on Page 5)  
**Moorhead Farmers Elevator Co.**  
**Moorhead, Minn.**  
**Thief River Falls Seed House**  
**Thief River Falls, Minn.**  
**Peterson-Biddick Co.**  
**Wadena, Minn.**  
**Dill Co., J. G.**  
**Wabasha, Minn.**  
**Northern Field Seed Co.**  
**Winona, Minn.**

**MISSISSIPPI**

**Rose Seed Co.**  
**Clarksdale, Miss.**  
**Pace Seed & Supply Co.**  
**Cleveland, Miss.**  
**Williams Co., P. P.**  
**Vicksburg, Miss.**  
**Harris Seed & Feed Co.**  
**Yazoo City, Miss.**

**MISSOURI**

**Adams Seed Co., T. Lee**  
**Kansas City, Mo.**  
 (See Adv. on Page 41)  
**Bagnall, Howard E.**  
**Kansas City, Mo.**  
**Peppard Seed Co.**  
**Kansas City, Mo.**  
**Rudy-Patrick Seed Co.**  
**Kansas City, Mo.**  
 (See Adv. on Page 39)  
**Maupin Seed Co.**  
**King City, Mo.**  
**Chesmore Seed Co.**  
**St. Joseph, Mo.**  
**Kellogg-Kelly Seed Co.**  
**St. Joseph, Mo.**  
 (See Adv. on Page 61)  
**Mitchelhill Seed Co.**  
**St. Joseph, Mo.**  
**Corneli Seed Co.**  
**St. Louis, Mo.**  
 (See Adv. on Page 25)  
**Mangelsdorf & Bro., Ed. F.**  
**St. Louis, Mo.**  
 (See Adv. on Page 13)  
**Prunty Seed & Grain Co.**  
**St. Louis, Mo.**  
**St. Louis Seed Co.**  
**St. Louis, Mo.**  
**Scott, T. Maurice**  
**St. Louis, Mo.**  
 (See Adv. on Page 61)  
**Springfield Seed Co.**  
**Springfield, Mo.**  
**Wood-Beazley Seed Co.**  
**Springfield, Mo.**

**MONTANA**

**Elliott Seed Co.**  
**Billings, Mont.**  
**Northern Montana Alfalfa Growers' Assn**  
**Glasgow, Mont.**  
**Barkemeyer Seed Co.**  
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**Helena, Mont.**  
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**Northland Seed Co.**  
Sidney, Mont.

**NEBRASKA**

Bonahoom Seed Co.  
Hastings, Neb.  
**Griswold Seed & Nursery Co.**  
Lincoln, Neb.  
(See Adv. on Page 65)  
Carberry Seed Co.  
Norfolk, Neb.  
**Allied Seed Co.**  
Omaha, Neb.  
**Nebraska Seed Co.**  
Omaha, Neb.  
(See Adv. on Page 9)  
Campbell, Henry  
Seward, Neb.  
Bowman Seed Co., The  
Superior, Neb.

**NEW HAMPSHIRE**

Varick Co., Jno. B.  
Manchester, N. H.

**NEW JERSEY**

Doughten Seed Co., The  
Jersey City, N. J.

**NEW MEXICO**

Mitchell, E. W.  
Roswell, N. Mex.

**NEW YORK**

Conklin-Sullivan Co.  
Binghamton, N. Y.  
Cone, Arthur R.  
Buffalo, N. Y.  
**Craver-Dickinson Seed Co.**  
Buffalo, N. Y.  
(See Adv. on Page 13)  
**Harvey Seed Co.**  
Buffalo, N. Y.  
**Stanford Seed Co.**  
Buffalo, N. Y.  
Whitney-Eckstein Seed Co.  
Buffalo, N. Y.  
**Page Seed Co.**  
Greene, N. Y.  
(See Adv. on Page 57)  
**Dickinson Co., The Albert**  
New York, N. Y.  
(See Adv. on Page 132)  
**Duryea Seed Co., Inc.**  
New York, N. Y.  
(See Adv. on Page 63)  
**Loechner & Co., Inc.**  
New York, N. Y.  
(See Adv. on Page 83)  
**Loewith, Inc., Julius**  
New York, N. Y.  
(See Adv. on Page 63)  
**McHutchison & Co.**  
New York, N. Y.  
(See Adv. on Page 161)  
**Radwaner Seed Co., I. L.**  
New York, N. Y.  
(See Adv. on Page 63)  
Stumpf & Walter Co.  
New York, N. Y.  
**Williamson, Garfield**  
New York, N. Y.  
(See Adv. on Page 92)  
**Gardner Seed Co.**  
Rochester, N. Y.

**NORTH CAROLINA**

Asheville Seed Co.  
Asheville, N. C.  
Brabham Seed Co.  
Charlotte, N. C.  
Buxton White Seed Co.  
Elizabeth City, N. C.  
Wyatt & Sons Co., Job P.  
Raleigh, N. C.  
Blount-Midyette & Co., Inc. (Soybeans)  
Washington, N. C.

Roudabush's Seed Store  
Wilmington, N. C.

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Dacotah Seed Co.  
Bismarck, N. D.  
Goldberg Seed & Feed Co.  
Fargo, N. D.  
**Interstate Seed & Grain Co.**  
Fargo, N. D.  
(See Adv. on Page 41)  
Magill & Co. (Operating Fargo Seed House)  
Fargo, N. D.

**Newday Seeds, Inc. (Sweet Clover)**  
Fargo, N. D.  
(See Adv. on Page 25)

Grand Forks Seed Co.  
Grand Forks, N. D.  
Aney Seed & Nursery Co., Roy  
Minot, N. D.  
Valker-Christensen Co.  
Minot, N. D.

**OHIO**

Healy Seed Co.  
Belle Center, Ohio  
**Market Gardeners' Seed Co.**  
Cincinnati, Ohio  
(See Adv. on Page 63)  
**McCullough Seed Co., The J. Chas.**  
Cincinnati, Ohio  
(See Adv. on Page 65)  
**McCullough's Sons Co., The J. M.**  
Cincinnati, Ohio  
(See Adv. on Page 63)  
Botzum Bros. Seed Co.  
Cleveland, Ohio  
Livingston Seed Co.  
Columbus, Ohio  
Hoyt Co., The A. C.  
Fostoria, Ohio  
**O. & M. Seed Co.**  
Green Springs, Ohio  
(See Adv. on Page 115)  
Eikenberry Bros. Co.  
Hamilton, Ohio  
**Ackerman Company**  
Lima, Ohio  
(See Adv. on Page 27)  
**Scott & Sons Co., O. M.**  
Marysville, Ohio  
(See Adv. on Page 31)  
Cover Seed Co., U. J.  
Mt. Gilead, Ohio  
Ingersoll Co., The Chas. M.  
Rocky River, Ohio  
Brown Seed Co.  
St. Paris, Ohio  
Flower Co. & Co., S. W.  
Toledo, Ohio  
**Hirsch & Sons, Henry**  
Toledo, Ohio  
(See Adv. on Page 7)

**OKLAHOMA**

Chickasha Seed Growers Co.  
Chickasha, Okla.  
**Muskogee Seed House**  
Muskogee, Okla.  
**Clarke & Keller Seed Store**  
Shawnee, Okla.  
**Binding-Stevens Seed Co.**  
Tulsa, Okla.

**OREGON**

**Albany Seed Co.**  
Albany, Ore.  
(See Adv. on Page 41)  
**Senders & Co., M.**  
Albany, Ore.  
**Engbretson Seed Co. (Bent Grass)**  
Astoria, Ore.  
**Hand Seed Co., Inc., A. M.**  
Portland, Ore.  
**Lilly Co., The Chas. H.**  
Portland, Ore.  
(See Adv. on Page 79)

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**North Coast Seed Co.**  
Portland, Ore.  
**Portland Seed Co.,**  
Portland, Ore.  
**Jenks White Seed Co.**  
Salem, Ore.  
(See Adv. on Page 25)

**PENNSYLVANIA**

**Schell, Inc., Walter S.**  
Harrisburg, Pa.  
**Allied Seed Co.**  
Philadelphia, Pa.  
**Atlantic Seed Co.**  
Philadelphia, Pa.  
**Philadelphia Seed Co. (Fancy Grasses)**  
Philadelphia, Pa.  
(See Adv. on Page 26)  
**Dickinson Co., The Albert**  
Pittsburgh, Pa.  
(See Adv. on Page 132)

**RHODE ISLAND**

**Barrett Co., The W. E.**  
Providence, R. I.

**SOUTH CAROLINA**

**Mixson Seed Co., Inc., W. H.**  
Charleston, S. C.  
**Caughman Feed & Seed Co.**  
Columbia, S. C.  
**Kirkland Seed Co., B. B.**  
Columbia, S. C.  
**Shuler & Smoak**  
Orangeburg, S. C.  
(See Adv. on Page 29)

**SOUTH DAKOTA**

**Sexauer & Son, George P.**  
Brookings, S. D.  
**Dakota Improved Seed Co.**  
Mitchell, S. D.  
(See Adv. on Page 57)  
**Western South Dakota Alfalfa Seed Growers Exchange**  
Rapid City, S. D.  
**Sioux City Seed Co.**  
Sioux Falls, S. D.  
(See Adv. on Pages 73 and 95)  
**McMahon, M. A.**  
Sturgis, S. D.

**TENNESSEE**

**Largen Lespedeza Co.**  
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**Coats, W. J.**  
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**London Hardware Co.**  
Johnson City, Tenn.  
**Mayo, D. R.**  
Knoxville, Tenn.  
**Security Mills**  
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Memphis, Tenn.  
**Cook, L. P.**  
Memphis, Tenn.  
**Fidelity Seed Co.**  
Memphis, Tenn.  
**Russell-Heckle Seed Co.**  
Memphis, Tenn.  
**Dobson-Hicks Co.**  
Nashville, Tenn.

**TEXAS**

**Roberts Grain Co.**  
Amarillo, Texas  
**Eastern Seed Co.**  
Corpus Christi, Texas  
**Hardie Seed Co., David**  
Dallas, Texas  
**Magnolia Seed Co.**  
Dallas, Texas  
**Nicholson Seed Co., Robert**  
Dallas, Texas  
**Ferguson Seed Farms**  
Howe, Texas

**Acme Seed Co.**  
Lubbock, Tex.  
**Cone Grain & Seed Co., S. E.**  
Lubbock, Texas  
**Satex Seed Co.**  
San Antonio, Tex.  
**Staffel Co., Ferd.**  
San Antonio, Tex.  
**Martin-Lane Co.**  
Vernon, Texas  
**Ruhman Grain & Seed Co.**  
Waco, Tex.

**UTAH**

**Bailey & Sons Co.**  
Salt Lake City, Utah  
**Kelly-Western Co.**  
Salt Lake City, Utah  
**Occidental Seed Co.**  
Salt Lake City, Utah  
(See Adv. on Page 65)  
**Westland Seed Co.**  
Salt Lake City, Utah

**VERMONT**

**Middlebrook & Sons, J. C.**  
Burlington, Vt.

**VIRGINIA**

**Gleason & Co., H. M.**  
Charlottesville, Va.  
**Smith Seed & Feed Co.**  
Danville, Va.  
**Wetsel Seed Co.**  
Harrisonburg, Va.  
**Grossman & Son, W.**  
Petersburg, Va.  
**Boehling & Co., F. H.**  
Richmond, Va.  
**Carter-Venable Co., Inc., The (Soybeans, Eureka Corn)**  
Richmond, Va.  
**Diggs & Beadles Seed Co.**  
Richmond, Va.  
**Wood & Sons, T. W.**  
Richmond, Va.

**WASHINGTON**

**Farley Seed Co.**  
Bellingham, Wash.  
**Skagit Seed Co.**  
Mount Vernon, Wash.  
**Zeb Seed Co.**  
Mount Vernon, Wash.  
**Lilly Co., Chas. H.**  
Seattle, Wash.  
(See Adv. on Page 79)  
**Northern Seed Growers**  
Seattle, Wash.  
**Northwest Seed Co.**  
Seattle, Wash.  
**Seattle Seed Co.**  
Seattle, Wash.  
**Spokane Seed Co.**  
Spokane, Wash.

**WISCONSIN**

**Osen Milling Co.**  
DePere, Wis.  
**Wells Milling Co., A. G.**  
Depere, Wis.  
**Henry Michels Seed Co.**  
Fond du Lac, Wis.  
**Olds Seed Co., L. L.**  
Madison, Wis.  
**Standard Seed Co.**  
Madison, Wis.  
**Courteen Seed Co.**  
Milwaukee, Wis.  
**Crossland, W. H.**  
Milwaukee, Wis.  
(See Adv. on Page 57)  
**Kellogg Seed Co.**  
Milwaukee, Wis.  
**Teweles Seed Co., L.**  
Milwaukee, Wis.  
**Cochrane Co., T. H.**  
Portage, Wis.

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**RED TOP  
BLUE GRASS  
MEADOW FESCUE  
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CLOVERS**

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## **Hamilton Seed and Coal Co.**

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SWEET CLOVER :: SUDAN :: CANE :: MILLET

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LINCOLN, NEBRASKA

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U. S. Verified Origin Common Alfalfa and  
Medium Clover. State Certified Sealed and  
Tagged Grimm Alfalfa, Affidavit Grimm, Alfalfa,  
Sweet Clover, Alsike and Grasses.

Carlots, straight or mixed

# FOREIGN FIELD SEEDS

## **ARGENTINE REPUBLIC**

Aron & Destefanis  
Buenos Aires, Argentine  
Bridger & Co.  
Buenos Aires, Argentine  
Crawford, Keen & Co.  
Buenos Aires, Argentine

**A USTRALIA**

Anderson & Co., Ltd.  
Sydney, N. S. W., Australia  
Austraseed Traders, Ltd.  
Sydney, Australia  
Brunnings Pty. Ltd., F. H.  
Melbourne, Australia  
Clements & Marshall, Ltd.  
Devonport, Tas., Australia  
Denhams, Pty., Ltd.  
Brisbane, Queensland, Australia  
Farmer & Co., Pty., Ltd.  
Melbourne, Australia  
Foster & Sons, Ltd.  
Sydney, Australia  
Gippsland & Northern Co-op Co., Ltd.  
Melbourne, Australia  
Harrap & Son, Ltd., Alfred  
Launceston, Tas., Australia  
Hillsdon Watts, Ltd.  
Mascot, Sydney, Australia  
Jackson & Co. Pty., Ltd., J.  
Brisbane, Queensland, Australia  
Law, Somner & Co.  
Melbourne, Australia  
Peterson Bros. & Craig, Ltd.  
Brisbane, Queensland, Australia  
Railton, James  
Melbourne, Vic., Australia  
River Don Trading Co., Ltd.  
Devonport, Tas., Australia  
Seccombe, W.  
Coff's Harbour, N. S. W., Australia  
Shepherd & Sons, Ltd.  
Sydney, Australia  
South Australian Farmers Co-op. Ltd.  
Adelaide, S. A., Australia  
Watter & Son Pty., Ltd.  
Melbourne, Australia  
Webb & Co., Ltd.  
Devonport, Tas., Australia  
Webster & Sons, A. G.  
Hobart, Tas., Australia  
Westralian Farmers Co-op., Ltd.  
Perth, Australia  
Yates & Co., Ltd., Arthur  
Sydney, N. S. W., Australia

## **AUSTRIA**

Gebruder, Boschan  
Vienna, Austria  
Hernfeld, Adolph  
Vienna, Austria

## **BELGIUM**

Bloucke & Fils  
Ostende, Belgium  
Cornelius, A. & C.  
Arlon, Belgium

## **CHINA**

Manshu Nosan Shokai, Inc.  
Dairen, South Manchuria, China

## **CZECHO SLOVAKIA**

Arnost Bahlsen  
Prague, Czecho Slovakia  
Donat & Schuftan  
Prague, Czecho Slovakia  
Hollander, Jakob  
Kosice, Czecho Slovakia  
Loewenthal Brothers  
Brno, Czecho Slovakia  
Sachsel & Sons, E.  
Prague, Czecho Slovakia  
Schon, Jacob S., Ltd.  
Brno, Czecho Slovakia

## **DANZIG**

**Handelsverband G.m.b.H.**  
**Danzig**

(See Adv. on Page 69)

**"Nasiona" Landw. Handelsges., m.b.H.**  
**Langermarkt No. 1, Danzig**  
(See Adv. on Page 69)

## **DENMARK**

**Daehnfeldt, L., & Theodor Jensen**  
**Odense, Denmark**  
(See Adv. on Page 97)  
**Danielsen & Larsen, Ltd., E.**  
Nakskov, Denmark  
**Dansk Frokultur, A/S**  
Kerteminde, Denmark  
**Dreyer, Fr.**  
Aarhus, Denmark  
**Hartmann & Co., Hjalmar**  
**Copenhagen, Denmark**  
(See Adv. on Page 83)  
**Hertz' Frokompani A/S**  
(See Adv. on Page 83)  
Copenhagen, Denmark  
**Jensens Eftf A/S, Jorgen**  
Copenhagen, Denmark  
**Morso Fro Kontor**  
Nykobing Mors, Denmark  
**Nordisk Fro Kontor**  
Copenhagen, Denmark  
**Olsen, Chr. A/S**  
**Odense, Denmark**  
(See Adv. on Page 87)  
**Ostergaards Froavl**  
Stensballe, Horsens, Denmark  
**Simested, M.**  
Holstebro, Denmark  
**Stallknecht & Meyer**  
Copenhagen, Denmark  
**Trifolium A/S**  
Copenhagen, Denmark  
**Veit, Simon**  
Copenhagen, Denmark

## **ENGLAND**

**Burlingham, G., & Sons, Ltd.**  
Bury St. Edmunds, England  
**Dunns Farm Seeds, Ltd.**  
Salisbury, England  
**Eastes & Loud**  
Ashford, Kent, England  
**Eastern Counties Farmers' Co-Operative Assn., Ltd.**  
Ipswich, England  
**Gascoyne Son & Buckland**  
Worcester, England  
**Goldsmith Bros., Ltd.**  
Bury St., Edmunds, England  
**Hasler & Co., Ltd.**  
Dunmow, Essex, England  
**Hurst & Son**  
London, England  
**Johnson & Son, Ltd., W. W.**  
Boston, England  
**Le May & Co., C. W.**  
London, England  
**McMaster & Frankish**  
Seething Lane, London, England  
**Pope & Chapman, Ltd.**  
Bishop's Stortford, England  
**Whalley, Ltd., Thomas**  
Liverpool, England  
**Woods, Sadd, Moore & Co., Ltd.**  
London, Norfolk, England

## **ESTHONIA**

**Esthonian Seed Co.**  
Tallinn, Estonia  
**Toniisson & Bros.**  
Tartu, Estonia

## **FRANCE**

**Beillard, Frederic**  
Le Mans, Sarthe, France  
**Bernard, Paul**  
Avignon, Vaucluse, France  
**Blain, Felix**  
St. Remy de Provence, France  
**Cherot, Michel (broker)**  
Choisy-le-Roi, Seine, France  
**Cietin, L., & Co.**  
Charlicu, Loire, France

## FOREIGN FIELD SEEDS—Continued

Desjobert & Fils, E.  
Moulins, Allier, France  
Galabert, Fnd.  
Caussade (Tarn-et-Garonne), France  
Godineau, R.  
Angers, Maine & Loire, France  
Guignard, A.  
Tours, France  
Legrand, Paul  
Moulins, Allier, France  
Les Fils de Labbe Leplatre  
Orleans, Loiret, France  
Loras Cyprien  
Lyon, Rhone, France  
Palisse, H.  
Chateauroux, Indre, France  
Plan  
Montelimar, Drome, France  
Planchard, Cayla & Co.  
Paris, France  
Rousset & Fils  
Paris, France  
Salmon, Maurice (broker)  
Paris, France  
Simon Louis Freres & Cie  
Bruyeres-le-Chatel (Seine-et-Oise),  
France  
Societe d'Exportation des Graines de  
Provence  
Graveson, France  
Tezier Freres  
Valence-Sur-Rhone, France  
Zidranski, Charles (Broker)  
Paris, France

## GERMANY

Appel, Conrad  
Darmstadt, Germany  
Becker, Hch. A.-G.  
Heilbronn A. N., Germany  
Bitterhoff, Sohn, August  
Berlin, Germany  
Boettcher, Jun., Otto  
Gross-Tabarz (Thuer.), Germany  
Boettcher & Voelcker  
Tabarz in Thuringen, Germany  
Boettcher, Inc., Otto  
Tabarz in Thuringen, Germany  
Bruhn, D. P., G.m.b.h.  
Kiel, Germany  
Christensen, V. L.  
Erfurt, Germany  
DeWit, John (broker)  
Hamburg, Germany  
Ernst und von Spreckelsen  
Hamburg, Germany  
Fiegel, Benno  
Berlin, Germany  
Friedebergs Wive, Gustav  
Stettin, Germany  
Funk & Kerstan  
Stettin, Germany  
Ganzer & Spiessbach  
Halle, Saale, Germany  
Gebruder Dippe, A. G.  
Quedlinburg, Germany  
Gebruder Kallmeyer, A. G.  
Erfurt, Germany  
Geucke, Rudolf  
Hamburg, Germany  
Haage, Franz Anton  
Erfurt, Germany  
Karkutsch & Co.  
Stettin, Germany  
Keller Sohn, Heinrich  
Darmstadt, Germany  
Kloster, A. P.  
Flensburg, Germany  
Knoll, K.  
Bamberg, Germany  
Le Coq & Co., A. G., A.  
Darmstadt, Germany  
Liefmann'Sohne Nachf, R.  
Hamburg, Germany  
Metz & Co.  
Berlin-Steglitz, Germany  
Müller & Co., D.  
Hamburg, Germany

Noth, Jr., Johs  
Fishbach (Gotha), Germany  
Nungesser, L. C.  
Griesheim near Darmstadt, Germany  
Pehle & Beckmann  
Leer in Ostfriesland, Germany  
Robra, Carl  
Aschersleben, Germany  
Sachs, David  
Quedlinburg, Germany  
Schott, Gustav  
Aschaffenburg, Germany  
Steingaesser & Co., G. J.  
Miltenberg, Bavaria, Germany  
Weise & Pfaffe  
Halle, Germany  
Wissinger, G.m.b.H., A. & W.  
Berlin, Germany  
Zuelzer, Gustav  
Hamburg, Germany

## HOLLAND

Barenbrug's Zaadhinkel  
Arnhem, Holland  
Busgers, W. E. & Co.  
Arnhem, Holland  
DeGroot, Van Nes & Co.  
Rotterdam, Holland  
Hermans, J. B.  
Maasbracht, Holland  
Hommo Ten Have's Seed Co.  
Scheemda, Holland  
Nederlandsche Elite Zaad Maatschappy  
(Sugar Beet)  
Hillegom, Holland  
Oudyk, Gebr.  
Waddinxveen, Holland  
Poortman, A.  
Rotterdam, Holland  
Robertus, Ltd., J. L.  
Winschoten, Holland  
Zwaan & de Wiljes Seed Co., Inc.  
Scheemda, Holland.

## HUNGARY

Fekete Brothers: Wholesale Seed  
Merchants Co., Ltd.  
Budapest, Hungary  
Hungarian Seed Culture Co., Ltd.  
Budapest, Hungary  
Mauthner, Ltd., Edmund  
Budapest, Hungary  
Tibor, Kemeny  
Budapest, Hungary  
(See Adv. on Page 69)

## INDIA

American Seed & Nursery Co.  
Lahore, India  
Sulabh Nursery & Seed Co. (Jute Seed)  
Calcutta, India

## IRELAND

Coburn & Son, Jas.  
Banbridge, Ireland  
McCausland, Samuel  
Belfast, Ireland  
McClinton & Co.  
Belfast, Ireland  
Morton, Jos.  
Banbridge, Ireland

## ITALY

Fasolo, Angelo  
Bologna, Italy  
Pini, Ernesto  
Bologna, Italy  
Sgaravatti Bros.-Sementi  
Padova, Italy

## JAPAN

Sancho Schotens  
Bandaedio, Yokohama, Japan

## JUGOSLAVIA

Jankomir d. d.  
Zagreb, Croatia  
Sjeme  
Osijek, Slovenia

## FOREIGN FIELD SEEDS—Continued

Teply, B.  
Zagreb, Croatia  
Todor Mraovic i Drug,  
Belgrade, Serbia

## LATVIA

Jacobowitz, Ltd., Heyman  
Riga, Latvia  
Jachmann, R.  
Riga, Latvia

## NEW ZEALAND

Canterbury Seed Co., Ltd.  
Christchurch, New Zealand  
Cooper, F. Ltd.  
Wellington, New Zealand  
Dalgety & Company, Ltd.  
Christchurch, New Zealand  
Montgomery & Co., J.  
Christchurch, New Zealand  
Murray, Roberts & Coy, Ltd.  
Dunedin, New Zealand  
National Mortgage & Agency Co. of New  
Zealand, Ltd.  
Dunedin, New Zealand  
Nimmo & Blair, Ltd.  
Dunedin, New Zealand  
**Paterson & Co., A. S.**  
Dunedin, New Zealand  
(See Adv. Below)  
Wright, Stephenson & Co., Ltd.  
Wellington, New Zealand  
Yates & Co., Arthur  
Auckland, New Zealand

## NORWAY

Bauman, Jos.  
Oslo, Norway  
Faelleskjopet  
Oslo, Norway  
Faelleskjopet  
Trondheim, Norway  
Grimstad Gartneri  
Grimstad, Norway  
Michelet, A.  
Oslo, Norway  
Norsk Froforsyning, A. S.  
Hamar, Norway  
Norsk Fro., A. S.  
Oslo, Norway  
Rogalands Faelleskjop  
Stavanger, Norway  
Vestlandske Kjopelag  
Bergen, Norway

## POLAND

Buszczynski & Sons, K.  
Warsaw, Poland  
Spira, David  
Krakow, Poland

## SCOTLAND

Bell Ltd., David  
Leith, Scotland  
Cross Seed Co., Ltd., Alexander  
Glasgow, Scotland  
Donaldson & Co., Ltd., John  
Edinburgh, Scotland  
Lawson & Son. Ltd., Peter  
Edinburgh, Scotland

## SOUTH AFRICA

Starke & Co., Ltd.  
Mowbray, Capetown, South Africa

## SPAIN

Moderno Cultivador  
Barcelona, Spain

## SWEDEN

Allmanna Svenska Utsadesaktiebolaget  
Svalof, Sweden  
Bjorkmann, Eftr. Aktiebolaget, A. & Co.'s  
Stockholm, Sweden  
Engstrom Aktiebolaget, Carl  
Eslof, Sweden  
Hallands Frokontor, Aktiebolaget  
Getinge, Sweden  
Holmberg Aktiebolaget, Algot & Son  
Norrkoping, Sweden  
Olson Aktiebolag, Otto J., & Sons  
Hammenhog, Sweden  
Skane-Hallands Utsades A-B.  
Helsingborg, Sweden  
Weibull Aktiebolaget, W.  
Landskrona, Sweden

## SWITZERLAND

Haubensak Sohne, Friedr.  
Basel, Switzerland  
Mauser, Emil  
Zurich, Switzerland  
Muller & Cie, E., S-A.  
Zurich, Switzerland  
Schweizer & Cie  
Thun, Switzerland  
Vatter, G. R.  
Bern, Switzerland  
Verband Ostschweiz. Landwirt.  
Genossenschaften  
Winterthur, Switzerland



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Rescue Grass

Crested Dogtail

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Yarrow

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CABBAGE  
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We export likewise Polish Red Clover, Spring Vetch, Hairy Vetch, Dwarf Essex Rape, Bird Rape or Ruebsen, Poppy Seed, Mustard Seed and Buckhorn.

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Shreve & Son  
Andalusia, Ala.  
Birmingham Seed Co.  
Birmingham, Ala.  
Pharr Co., King (Okra)  
Catherine, Ala.  
Poyner Seed Co.  
Dothan, Ala.  
Wind & Co., I.  
Huntsville, Ala.  
Van Antwerp Seed Co.  
Mobile, Ala.

### **ARKANSAS**

Lee, Arthur G.  
Fort Smith, Ark.  
Bass-Isgrig Seed Co.  
Little Rock, Ark.  
Cochran Co., H. K.  
Little Rock, Ark.  
Texarkana Seed House,  
Texarkana, Ark.  
Word Seed Store  
Texarkana, Ark.

### **CALIFORNIA**

**Fish, Henry Berrien Seedsmen (Beans)**  
Carpinteria, Calif.  
(See Adv. on Page 71)

**Bodger Seeds, Ltd.**  
**El Monte, Los Angeles County, Calif.**  
(See Adv. on Page 33)

Aggeler & Musser Seed Co., Inc.  
Los Angeles, Calif.

**Germain Seed & Plant Co.**  
**Los Angeles, Calif.**  
(See Adv. on Page 161)

Southern California Seed Co.  
Los Angeles, Calif.

**Lagomarsino & Sons, F.**  
**Sacramento, Calif.**  
(See Adv. on Page 34)

Kellogg Seed Co. of California  
Salinas, Calif.

**Bertrand Seed Co.**  
**San Francisco, Calif.**  
(See Adv. on Page 79)

**Ferry-Morse Seed Co.**  
**San Francisco, Calif.**  
(See Adv. on Page 76)

**Oriental Seeds & Plants Co.**  
**San Francisco, Calif.**  
(See Adv. on Page 71)

Pacific Seed Co.  
San Francisco, Calif.

**Sherwood Seed Co.**  
**San Francisco, Calif.**  
(See Adv. on Page 47)

**Haven Seed Co. (Tomatoes)**  
**Santa Ana, Calif.**  
(See Adv. on Page 77)

**McCrea Seed Co.**  
**Santa Barbara, Calif.**  
(See Adv. on Page 75)

**Hedrick & Sweetland**  
**Santa Paula, Calif.**  
(See Adv. on Page 79)

**Paramount Seed Co.**  
**Stockton, Calif.**  
(See Adv. on Page 23)

**Standard Seed Farms Co.**  
**Stockton, Calif.**  
(See Adv. on Page 100)

### **CANADA**

McKenzie Co., Ltd., A. E.  
Brandon, Manitoba, Can.  
Bruce & Co., Ltd., John A.  
Hamilton, Ont., Can.  
Ewing, The Wm. Co., Ltd.  
Montreal, Quebec  
Keith & Sons, Geo.  
Toronto, Canada  
Rennie Seeds, Ltd., Wm.  
Toronto, Canada

**Steele, Briggs Seed Co., Ltd.**  
**Toronto, Canada**  
(See Adv. on Page 35)

### **COLORADO**

Barteldes Seed Co.  
Denver, Colo.  
Colorado Seed Co.  
Denver, Colo.  
Rocky Mountain Seed Co.  
Denver, Colo.  
Simpson Seed & Floral Co.  
Denver, Colo.  
Western Seed Co.  
Denver, Colo.

**Grand Junction Seed Co.**  
**Grand Junction, Colo.**  
(See Adv. on Page 71)

Balcom Seed Co.  
Greeley, Colo.

Burrell Seed Growers Co.  
Rocky Ford, Colo.

James, R. H.  
Rocky Ford, Colo.

### **CONNECTICUT**

**Associated Seed Growers, Inc.**  
**New Haven, Conn.**  
(See Adv. on Page 99)

**Comstock, Ferre & Co.**  
**Wethersfield, Conn.**  
(See Adv. on Page 91)

**Hart Seed Co., Chas. C.**  
**Wethersfield, Conn.**  
(See Adv. on Page 45)

**Woodruff & Sons, F. H.**  
**Milford, Conn.**  
(See Adv. on Front Cover)

Woodruff & Sons, S. D.  
Orange, Conn.

### **FLORIDA**

Shreve Seed Co.  
Chipley, Fla.

**Gilbert, D. H. (Watermelon)**  
**Monticello, Fla.**  
(See Adv. on Page 71)

Kilgore Seed Co., The  
Plant City, Fla.

Crenshaw-McMichael Seed Co.  
Tampa, Fla.

Security Feed & Seed Co.  
Tampa, Fla.

### **•GEORGIA**

**Athens Seed Co.**  
**Athens, Ga.**  
(See Adv. on Page 57)

**Hastings-Associated Seeds, Inc.**  
**Atlanta, Ga.**  
(See Adv. on Page 99)

Walton Seed Co.  
Augusta, Ga.

Curry-Arrington Seed Co.  
Rome, Ga.

### **IDAHO**

Filer Seed Co.  
Blackfoot, Ida.

Crookham Co.  
Caldwell, Ida.

Oakes & Co., Edgar L. (Sweet Corn)  
Caldwell, Ida.

Duthie Co.  
Lewiston, Ida.

Mark Means Seed Co.  
Lewiston, Ida.

Moscow-Idaho Seed Co. (Peas and Beans)  
Moscow, Ida.

**Washburn Wilson Seed Co.**  
**Moscow, Ida.**  
(See Adv. on Page 31)

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Are grown under different seasonal conditions. We are not liable to have short crops on the same items in the same season as other sections. This insures your contract against shortages on high priced items.

Beans, Carrot, Sweet Corn, Cucumber, Lettuce, Muskmelon, Onion, Parsnip, Peas, Pepper, Pumpkin, Squash, Tomato, Zinnias.

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## WHOLESALE GARDEN SEEDS—Continued

**ILLINOIS**

Barnard Co., The W. W.  
Chicago, Ill.  
**Leonard Seed Co.**  
Chicago, Ill.  
(See Adv. on Third Cover)  
**Rogers Bros. Seed Co.**  
Chicago, Ill.  
(See Adv. on Rear Cover)  
Vaughan's Seed Store  
Chicago, Ill.  
Condon Bros. Seedsmen  
Rockford, Ill.

**INDIANA**

**Crabbs, Reynolds, Taylor Co.**  
Crawfordsville, Ind.  
Ohio Valley Seed Co.  
Evansville, Ind.  
Everitt's Seed Store  
Indianapolis, Ind.  
**Warren Seed Co.**  
Indianapolis, Ind.  
Indiana Seed & Plant Co.  
Richmond, Ind.  
Quinlan Seed Store  
Terre Haute, Ind.

**IOWA**

Standard Seed Co.  
Des Moines, Ia.  
**Dakota Improved Seed Co.**  
Emmetsburg, Iowa  
(See Adv. on Page 57)  
**Webster Co., Mel L.**  
Independence, Ia.  
Midwest Seed Co.  
Perry, Iowa  
**Sioux City Seed Co.**  
Sioux City, Ia.  
(See Adv. on Pages 79 and 95)

**KANSAS**

Mangelsdorf & Co., F. A.  
Atchison, Kan.  
Bowman Seed Co., The  
Concordia, Kan.  
Barteldes Seed Co.  
Lawrence, Kan.  
Coe Seed & Grain Co., D. O.  
Topeka, Kan.  
Ross Bros. Seed Co.  
Wichita, Kan.

**KENTUCKY**

**Brent Seed Co., C. S.**  
Lexington, Ky.  
(See Adv. on Page 39)  
Bunton Seed Co.  
Louisville, Ky.  
Hall Seed Co.  
Louisville, Ky.  
Yopp Seed Co.  
Paducah, Ky.

**LOUISIANA**

Reuter Seed Co., Inc.  
New Orleans, La.  
Kalmbach-Burckett Co., Inc.  
Shreveport, La.

**MARYLAND**

**Blamberg Brothers, Inc.**  
Baltimore, Md.  
(See Adv. on Page 23)  
Manns & Co., J.  
Baltimore, Md.  
**Meyer Seed Co., The**  
Baltimore, Md.

**MASSACHUSETTS**

Breck & Sons, Joseph  
Boston, Mass.  
Emerson Co., Thos. W.  
Boston, Mass.  
Ross Bros. Co.  
Worcester, Mass.

**MICHIGAN**

American Seed Co.  
Detroit, Mich.  
**Ferry-Morse Seed Co.**  
Detroit, Mich.  
(See Adv. on Page 76)  
**Brown Seed Co., Alfred J.**  
Grand Rapids, Mich.  
(See Adv. on Page 11)  
Brown & Son, Inc., A. J. (Peas and Beans)  
Grand Rapids, Mich.  
**Isbell Seed Co.**  
Jackson, Mich.  
(See Adv. on Page 27)

**MINNESOTA**

**Farmer Seed & Nursery Co.**  
Faribault, Minn.  
(See Adv. on Page 115)  
**Northrup, King & Co.**  
Minneapolis, Minn.  
(See Adv. on Page 5)

**MISSISSIPPI**

Wright Seed Co. (Beans)  
Centreville, Miss.  
**Rose Seed Co.**  
Clarksdale, Miss.  
**Kimbrough Seed Co.**  
Meridian, Miss.

**MISSOURI**

**Adams Seed Co., T. Lee**  
Kansas City, Mo.  
(See Adv. on Page 41)  
**Rudy-Patrick Seed Co.**  
Kansas City, Mo.  
(See Adv. on Page 39)  
Chesmore Seed Co.  
St. Joseph, Mo.  
Mitchelhill Seed Co.  
St. Joseph, Mo.  
**Corneli Seed Co.**  
St. Louis, Mo.  
(See Adv. on Page 25)  
St. Louis Seed Co.  
St. Louis, Mo.  
United States Seed Co.  
St. Louis, Mo.

**MONTANA**

Elliott Seed Co.  
Billings, Mont.  
State Nursery & Seed Co.  
Helena, Mont.  
Northland Seed Co.  
Sidney, Mont.

**NEBRASKA**

Western Seed & Irrigation Co.  
Fremont, Neb.  
**Griswold Seed & Nursery Co.**  
Lincoln, Neb.  
(See Adv. on Page 65)  
**Nebraska Seed Co.**  
Omaha, Neb.  
(See Adv. on Page 9)  
Bowman Seed Co., The  
Superior, Neb.  
**The J. C. Robinson Seed Co.**  
Waterloo, Neb.  
(See Adv. on Page 99)

**NEW JERSEY**

**White Co., Joseph (Tomato and Pepper)**  
Bridgeton, N. J.  
(See Adv. on Page 91)  
Pedrick & Sons, Geo. R.  
Pedricktown, N. J.  
**Hurff, Edgar F.**  
Swedesboro, N. J.  
(See Adv. on Page 45)

**NEW YORK**

Harvey Seed Co.  
Buffalo, N. Y.  
**Rice Seed Co., Jerome B.**  
Cambridge, N. Y.  
(See Adv. on Page 45)  
Denison Seed Co., W. A.  
Ellisburg, N. Y.

# HERBST BROTHERS, INC.

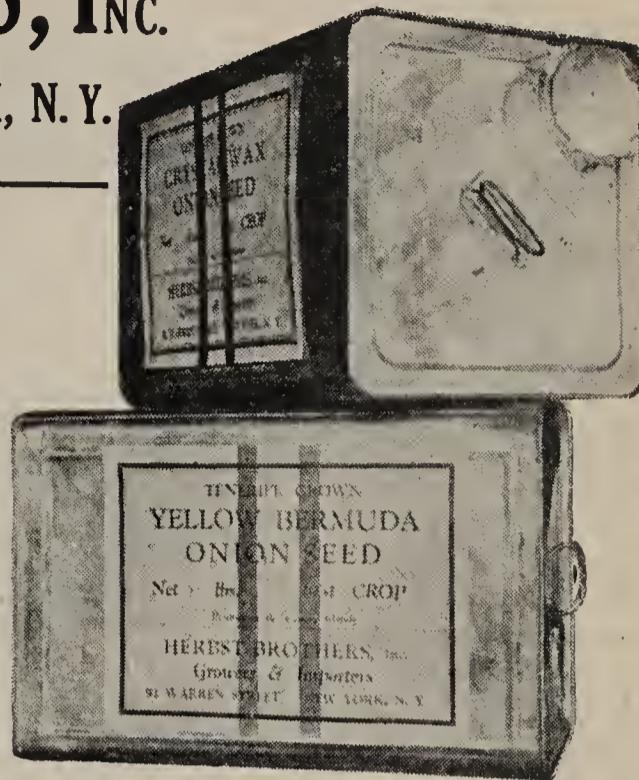
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**EXPORTERS AND IMPORTERS** of vegetable, flower and fancy grass seeds—seeds for the nursery and reforestation projects a specialty.

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*See Color Insert Page 131*

Growers and distributors of Tenerife grown Bermuda and Genuine Sweet Spanish Valencia Onion Seeds.

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Honestly grown from the finest stocks and with utmost care.  
Growing stations throughout the middle and northwest.

FOR 50 YEARS

Breeders and Growers for the Wholesale Trade

## WHOLESALE GARDEN SEEDS—Continued

**Page Seed Co.****Greene, N. Y.**

(See Adv. on Page 57)

**Lupton & Son, J. M.****Mattituck, L. I., N. Y.****Herbst Bros.****New York, N. Y.**

(See Adv. on Pages 73 and 131)

**Loechner & Co., Inc.****New York, N. Y.**

(See Adv. on Page 83)

**Madsen & Co., Thos.****New York, N. Y.****Stumpf & Walter Co.****New York, N. Y.****Suhr Co., E.****New York, N. Y.**

(See Adv. on Page 81)

**Vaughan's Seed Store****New York, N. Y.****Williamson, Garfield****New York City**

(See Adv. on Page 92)

**Gardner Seed Co.****Rochester, N. Y.****NORTH CAROLINA****Buxton White Seed Co.****Elizabeth City, N. C.****Hornaday Seed Co.****Greensboro, N. C.****Wyatt & Sons Co., Job P.****Raleigh, N. C.****Roudabush's Seed Store****Wilmington, N. C.****NORTH DAKOTA****Magill & Co. (Operating Fargo Seed House)****Fargo, N. D.****OHIO****Botzum Bros. Seed Co.****Akron, Ohio****Holmes Seed Co.****Canton, Ohio****Letherman Seed & Supply Co.****Canton, Ohio****Schilder Bros. (Onion Seed and Sets)****Chillicothe, Ohio****McCullough Seed Co., J. Chas.****Cincinnati, Ohio**

(See Adv. on Page 65)

**McCullough's Sons Co., J. M.****Cincinnati, Ohio**

(See Adv. on Page 63)

**Market Gardener's Seed Co.****Cincinnati, Ohio**

(See Adv. on Page 63)

**Davis, Zack****Delaware, Ohio****O. & M. Seed Co.****Green Springs, Ohio**

(See Adv. on Page 115)

**Ingersoll Co., The Chas. M.****Rocky River, Ohio****Woodruff & Sons, F. H.****Toledo, Ohio**

(See Adv. on Front Cover)

**OKLAHOMA****Muskogee Seed House****Muskogee, Okla.****Clarke & Keller Seed Store****Shawnee, Okla.****Binding-Stevens Seed Co.****Tulsa, Okla.****OREGON****Hand Seed Co., Inc., A. M.****Portland, Ore.****Lilly Co., The Chas. H.****Portland, Ore.**

(See Adv. on Page 79)

**North Coast Seed Co.****Portland, Ore.****Portland Seed Co.****Portland, Ore.****Jenks White Seed Co.****Salem, Ore.**

(See Adv. on Page 25)

**PENNSYLVANIA****Landreth Seed Co., D.****Bristol, Pa.**

(See Adv. on Page 3)

**Schell, Inc., Walter S.****Harrisburg, Pa.****Buist Co., Robert****Philadelphia, Pa.**

(See Adv. on Page 75)

**Burpee Co., W. Atlee****Philadelphia, Pa.**

(See Adv. on Page 103)

**Michell Co., Henry F.****Philadelphia, Pa.****Simon & Son, I. N.****Philadelphia, Pa.**

(See Adv. on Page 75)

**RHODE ISLAND****Barrett Co., The W. E.****Providence, R. I.****SOUTH CAROLINA****Mixson Seed Co., Inc., W. H.****Charleston, S. C.****Caughman Feed & Seed Co.****Columbia, S. C.****Kirkland Seed Co., B. B.****Columbia, S. C.****Shuler & Smoak****Orangeburg, S. C.**

(See Adv. on Page 29)

**SOUTH DAKOTA****Dakota Improved Seed Co.****Mitchell, S. D.**

(See Adv. on Page 57)

**TENNESSEE****London Hardware Co.****Johnson City, Tenn.****Mayo, D. R.****Knoxville, Tenn.****Snapp & Sons, J. P.****Limestone, Tenn.**

(See Adv. on Page 93)

**Buchanan Seed Company, R. B.****Memphis, Tenn.****Russell-Heckle Seed Co.****Memphis, Tenn.****Dobson-Hicks Co.****Nashville, Tenn.****TEXAS****Eastern Seed Co.****Corpus Christi, Texas****Stokes & Co., Francis C.****Corpus Christi, Texas****Hardie Seed Co., David****Dallas, Texas****Magnolia Seed Co.****Dallas, Texas****Nicholson Seed Co., Robert****Dallas, Texas****American Seed Co.****Fort Worth, Texas****Texas-Associated Seeds, Inc.****Harlingen, Texas**

(See Adv. on Page 99)

**Acme Seed Co.****Lubbock, Tex.****Satex Seed Co.****San Antonio, Tex.****UTAH****Bailey & Sons Co.****Salt Lake City, Utah****Porter-Walton Seed Co.****Salt Lake City, Utah****VIRGINIA****Digg & Beadles Seed Co., Inc.****Richmond, Va.****Wood & Sons, T. W.****Richmond, Va.****WASHINGTON****Christianson, Alf.****Mt. Vernon, Wash.**

(See Adv. on Page 91)

**BUIST'S**

# GARDEN SEEDS

FAMOUS FOR  
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WRITE FOR QUOTATIONS  
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SEED BEANS**

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## WHOLESALE GARDEN SEEDS—Continued

Skagit Seed Co.  
Mount Vernon, Wash.  
Zeb Seed Co.  
Mt. Vernon, Wash.  
**Lilly Co., Chas. H.**  
**Seattle, Wash.**  
(See Adv. on Page 79)  
Seattle Seed Co.  
Seattle, Wash.  
Spokane Seed Co.  
Spokane, Wash.

**WISCONSIN**  
Olds Seed Co., L. L.  
Madison, Wis.  
Manitowoc Seed Co.  
Manitowoc, Wis.  
Hunkel Co., G. H.  
Milwaukee, Wis.  
Wisconsin Cabbage Seed Co. (Cabbage  
Seed)  
Racine, Wis.

## GROWERS GARDEN SEEDS

**ALABAMA**

Pharr Co., King (Okra)  
Catherine, Ala.

**CALIFORNIA**

**Fish, Henry Berrien, Seedsmen (Beans)**  
**Carpinteria, Calif.**  
(See Adv. on Page 71)  
**Pieters-Wheeler Seed Co.**  
**Gilroy, Calif.**  
(See Adv. on Page 7)  
**Rohnert Co., Waldo**  
**Gilroy, Calif.**  
(See Adv. on Page 101)  
**Lagomarsino & Sons, F.**  
**Sacramento, Calif.**  
(See Adv. on Page 34)  
**Woodruff & Sons, F. H.**  
**Sacramento, Calif.**  
(See Adv. on Front Cover)  
**Associated Seed Growers, Inc.**  
**Salinas, Calif.**  
(See Adv. on Page 99)  
Kellogg Seed Co. of California  
Salinas, Calif.  
**Bertrand Seed Co.**  
**San Francisco, Calif.**  
(See Adv. on Page 79)

**Ferry-Morse Seed Co.**

**San Francisco, Calif.**  
(See Adv. Below)

Maffei Seed Co., L. D.  
San Francisco, Calif.

**Sherwood Seed Co.**

**San Francisco, Calif.**  
(See Adv. on Page 47)

**Braslan Seed Growers Co., Inc.**  
**San Jose, Calif.**  
(See Adv. on Page 93)

Kimberlin Seed Co.  
San Jose, Calif.

**Haven Seed Co. (Tomato)**  
**Santa Ana, Calif.**  
(See Adv. on Page 77)

**R. A. Haven, Seedsman (Tomato)**  
**Santa Ana, Calif.**  
(See Adv. on Page 47)

**McCrea Seed Co.**  
**Santa Barbara, Calif.**  
(See Adv. on Page 75)

**Hedrick & Sweetland**  
**Santa Paula, Calif.**  
(See Adv. on Page 79)

**Standard Seed Farms Co.**  
**Stockton, Calif.**  
(See Adv. on Page 100)



A view of our Trial Grounds near Salinas, California, where from 300 to 400 samples of lettuce are planted and noted three times each year.

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PARSLEY  
PARSNIP  
RADISH

PEAS  
BEANS  
CORN

SWEET PEAS  
STOCKS  
ZINNIA

THE FINAL PROOF OF QUALITY—

**THE CROP**

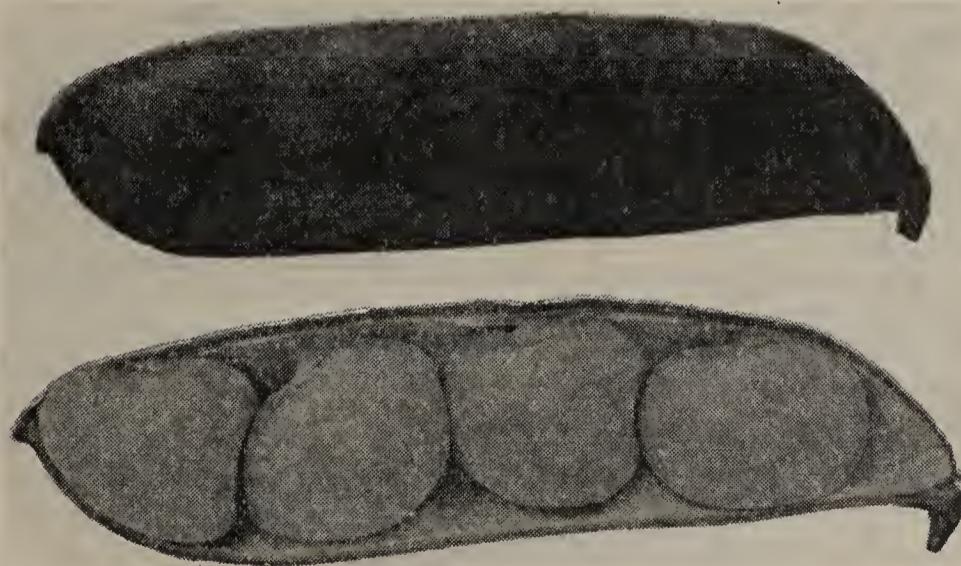


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BY

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**TOMATO SEED  
AND  
FORDHOOK  
BUSH LIMA BEANS**



**Haven Seed Company**

SANTA ANA

CALIFORNIA

## GROWERS GARDEN SEEDS—Continued

**CANADA**

**Hogg & Lytle, Ltd.**  
Oshawa, Ont., Canada  
**Steele, Briggs Seed Co., Ltd.**  
**Toronto, Canada**  
(See Adv. on Page 35)

**COLORADO**

**Barteldes Seed Co.** (Beans and Onion Sets  
Denver, Colo.)

**Grand Junction Seed Co.**  
**Grand Junction, Colo.**  
(See Adv. on Page 71)

**Associated Seed Growers, Inc.**  
**Greeley, Colo.**  
(See Adv. on Page 99)

**Balcom Seed Co.** (Beans)  
Greeley, Colo.  
**Burrell Seed Growers Co.**  
Rocky Ford, Colo.  
**Ebbert Seed Co.**

Rocky Ford, Colo.  
**Garwood Seed Co., H. D.**  
Rocky Ford, Colo.  
**James, R. H.**  
Rocky Ford, Colo.

**Robinson Seed Co., The J. C.**  
**Rocky Ford, Colo.**  
(See Adv. on Page 99)

**Woodruff & Sons, F. H.**  
**Rocky Ford, Colo.**  
(See Adv. on Front Cover)  
**Woodside Seed Growers Co.**  
Rocky Ford, Colo.

**CONNECTICUT**

**Woodruff & Sons, F. H.**  
**Milford, Conn.**  
(See Adv. on Front Cover)

**Associated Seed Growers, Inc.**  
**New Haven, Conn.**  
(See Adv. on Page 99)  
**Woodruff & Sons, S. D.**  
Orange, Conn.  
**Comstock, Ferre & Co.**  
**Wethersfield, Conn.**  
(See Adv. on Page 91)  
**Hart Seed Co., Chas. C.**  
**Wethersfield, Conn.**  
(See Adv. on Page 45)

**FLORIDA**

**Taylor Seedsman, Inc., H. M.** (Watermelon)  
Lloyd, Fla.  
**Willie & Son, J. J.** (Watermelon)  
Lloyd, Fla.  
**Gilbert, D. H. (Watermelon)**  
**Monticello, Fla.**  
(See Adv. on Page 71)  
**Henderson Seed Farms** (Watermelon)  
Monticello, Fla.  
**Sattler, F. J. (Watermelon)**  
Monticello, Fla.

**GEORGIA**

**Woodruff & Sons, F. H.**  
**Atlanta, Ga.**  
(See Adv. on Front Cover)  
**Richter & Sons, P. A.** (Collard)  
Cairo, Ga.  
**Steiner Branch Seed Co.** (Watermelon)  
Grovetown, Ga.  
**Beechwood Seed Farms** (Okra)  
Rome, Ga.  
**Fulwood, P. D.**  
**Tifton, Ga.**  
(See Adv. on Page 23)

**IDAHO**

**Filer Seed Co.**  
Blackfoot, Idaho  
**Crookham & Co.**  
Caldwell, Idaho  
**Hodge, G. D.** (Lettuce Seed)  
Moscow, Idaho  
**Moscow-Idaho Seed Co.** (Peas and Beans)  
Moscow, Idaho  
**Washburn-Wilson Seed Co.**  
(Peas and Beans)  
Moscow, Idaho  
(See Adv. on Page 31)

**Associated Seed Growers, Inc.**

**St. Anthony, Idaho**  
(See Adv. on Page 99)

**Woodruff & Sons, F. H.**  
**St. Anthony, Idaho**  
(See Adv. on Front Cover)

**ILLINOIS**

**Barnard Co., W. W.**  
Chicago, Ill.  
**Leonard Seed Co.**  
**Chicago, Ill.**  
(See Adv. on Third Cover)  
**Rogers Bros. Seed Co. (Peas and Beans)**  
**Chicago, Ill.**  
(See Adv. on Rear Cover)  
**Vaughan's Seed Store**  
Chicago, Ill.  
**Condon Bros., Seedsmen**  
Rockford, Ill.

**INDIANA**

**Crabbs Reynolds Taylor Co.**  
Crawfordsville, Ind.  
**Hall-Stingle Co. (Tomato)**  
Waterloo, Ind.

**IOWA**

**Hoopes & Co., J. E.**  
Muscatine, Iowa  
**Sioux City Seed Co.**  
**Sioux City, Iowa**  
(See Adv. on Pages 73 and 95)

**KANSAS**

**Barteldes Seed Co.**  
Lawrence, Kan.

**MARYLAND**

**Blamberg Bros., Inc.**  
Baltimore, Md.  
(See Adv. on Page 23)

**MASSACHUSETTS**

**Breck & Sons, Joseph**  
Boston, Mass.  
**Emerson Co., Thos. W.**  
Boston, Mass.

**MICHIGAN**

**Adrian Seed Growing Co. (Tomato Seed)**  
**Adrian, Mich.**  
(See Adv. on Page 93)  
**Morse & Son, Guy** (Radish)  
Central Lake, Mich.  
**Ferry-Morse Seed Co.**  
**Detroit, Mich.**  
(See Adv. on Page 76)  
**Brown & Son, Inc., A. J.** (Peas and Beans)  
Grand Rapids, Mich.  
**Brown Seed Co., Alfred J. (Peas and Beans)**  
**Grand Rapids, Mich.**  
(See Adv. on Page 11)  
**Isbell Seed Co.**  
**Jackson, Mich.**  
(See Adv. on Page 27)

**MINNESOTA**

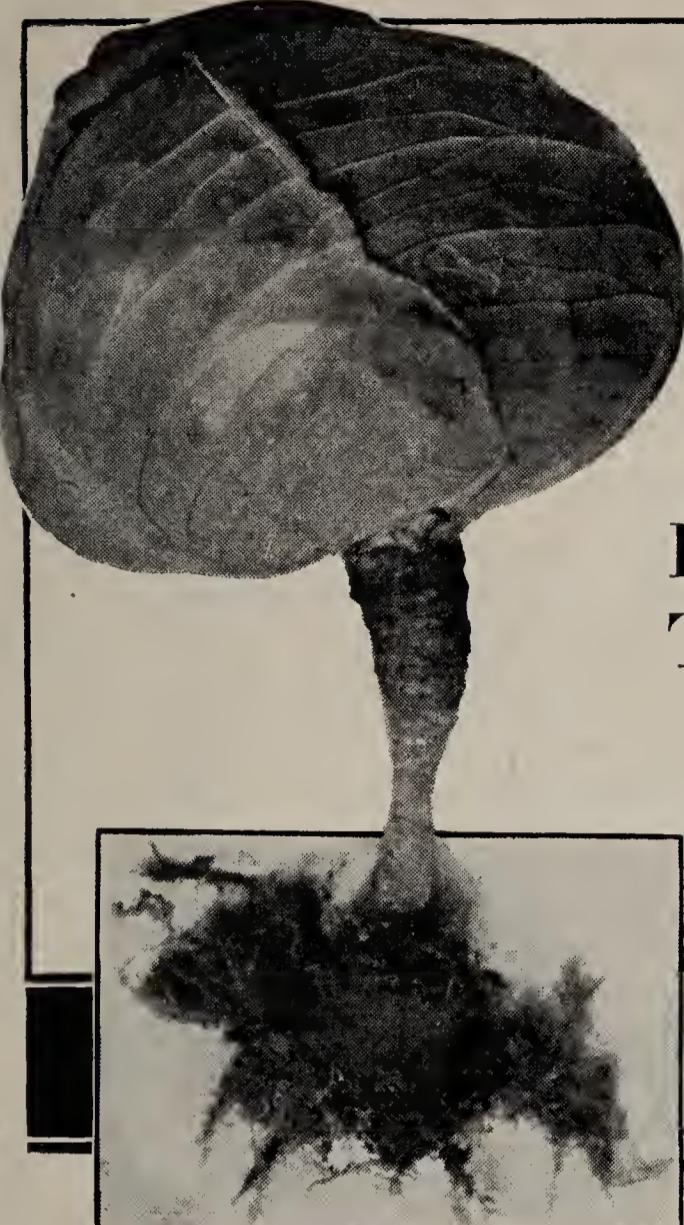
**Farmer Seed & Nursery Co.**  
Faribault, Minn.  
(See Adv. on Page 115)  
**Northrup, King & Co.**  
Minneapolis, Minn.  
(See Adv. on Page 5)

**MISSOURI**

**Corneli Seed Co.**  
**St. Louis, Mo.**  
(See Adv. on Page 25)  
**United States Seed Co.**  
St. Louis, Mo.

**MONTANA**

**Woodruff & Sons, F. H.**  
Belfry, Mont.  
(See Adv. on Front Cover)  
**Associated Seed Growers, Inc.**  
**Bozeman, Mont.**  
(See Adv. on Page 99)



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**CALIFORNIA GARDEN SEEDS  
PEAS AND BEANS**

SAN FRANCISCO

CALIFORNIA

## GROWERS GARDEN SEEDS—Continued

**Gallatin Valley Seed Co.**  
Bozeman, Mont.  
**Woodruff & Sons, F. H.**  
**Great Falls, Mont.**  
(See Adv. on Front Cover)  
**Associated Seed Growers, Inc.**  
**Hamilton, Mont.**  
(See Adv. on Page 99)

**NEBRASKA**  
**Western Seed & Irrigation Co.**  
Fremont, Neb.  
**Nebraska Seed Co.**  
**Omaha, Neb.**  
(See Adv. on Page 9)  
**Coy & Son, Chauncey P. (Vine)**  
Waterloo, Neb.  
**Robinson Seed Co., J. C. (Vine and Corn)**  
Waterloo, Neb.  
(See Adv. on Page 99)

**NEW JERSEY**  
**White Co., Joseph (Tomato and Pepper)**  
Bridgeton, N. J.  
(See Adv. on Page 91)  
**Hammell Seed Farms, Geo. Q.**  
Cedarville, N. J.  
**Pedrick & Sons, Geo. R.**  
Pedricktown, N. J.  
**Hurff, Edgar F.**  
Swedesboro, N. J.  
(See Adv. on Page 45)

**NEW YORK**  
**Woodruff & Sons, F. H.**  
Bellerose, N. Y.  
(See Adv. on Front Cover)  
**Rice Seed Co., Jerome B.**  
Cambridge, N. Y.  
(See Adv. on Page 45)  
**Harris Co., Joseph**  
Coldwater, N. Y.  
**Robson Seed Farms**  
Hall, N. Y.  
**Lupton & Son, J. M.**  
Mattituck, L. I., N. Y.  
**Herbst Brothers**  
New York, N. Y.  
(See Adv. on Pages 73 and 131)  
**Madsen & Co., Thos.**  
New York, N. Y.  
**Stumpp & Walter Co.**  
New York, N. Y.  
**Suhr Co., E.**  
New York, N. Y.  
(See Adv. on Page 81)  
**Vaughan's Seed Store**  
New York, N. Y.

**OHIO**  
**Holmes Seed Co.**  
Canton, Ohio  
**Schilder Bros. (Onion Seed and Sets)**  
Chillicothe, Ohio  
**O. & M. Seed Co.**  
Green Springs, Ohio.  
(See Adv. on Page 115)  
**Quirk, John B.**  
North Madison, Ohio  
**Woodruff & Sons, F. H.**  
Toledo, Ohio  
(See Adv. on Front Cover)

**OREGON**  
**Gill Bros. Seed Co.**  
Portland, Ore.  
**Hand Seed Co., Inc., A. M.**  
Portland, Ore.

**PENNSYLVANIA**  
**Landreth Seed Co., D.**  
Bristol, Pa.  
(See Adv. on Page 3)  
**Buist Co., Robert**  
Philadelphia, Pa.  
(See Adv. on Page 75)  
**Burpee Co., W. Atlee**  
Philadelphia, Pa.  
(See Adv. on Page 103)

**TENNESSEE**  
**Snapp, J. P., & Sons**  
Limestone, Tenn.  
(See Adv. on Page 93)

**TEXAS**  
**Magnolia Seed Co.**  
Dallas, Texas  
**Nicholson Seed Co., Robert**  
Dallas, Texas  
**Woodruff & Sons, F. H.**  
Mercedes, Texas  
(See Adv. on Front Cover)

**VERMONT**  
**Hawkins, Budd D.**  
Reading, Vt.

**VIRGINIA**  
**Wood & Sons, T. W.**  
Richmond, Va.

**WASHINGTON**  
**Associated Seed Growers, Inc.**  
Fairfield, Wash.  
(See Adv. on Page 99)  
**Aabling's Seed Farms, Inc.**  
Mt. Vernon, Wash.  
**Christianson, Alf**  
Mt. Vernon, Wash.  
(See Adv. on Page 91)  
**Skagit Seed Co.**  
Mt. Vernon, Wash.  
**Zeb Seed Co.**  
Mt. Vernon, Wash.  
**Lilly Co., Chas. H.**  
Seattle, Wash.  
(See Adv. on Page 79)  
**Northwest Seed Co.**  
Seattle, Wash.  
**Seattle Seed Co.**  
Seattle, Wash.  
**Morrison Bros. Seed Co. (Peas)**  
Spokane, Wash.

**WISCONSIN**  
**Rugowski Seed Co., J. K.**  
Manitowoc, Wis.  
**Hunkel Co., G. H.**  
Milwaukee, Wis.  
**Wisconsin Cabbage Seed Co.**  
Racine, Wis.

**WYOMING**  
**Woodruff & Sons, F. H.**  
Basin, Wyoming  
(See Adv. on Front Cover)  
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Vienna, Austria

### CANARY ISLANDS

Alonso, Juan P.  
Teneriffe, Canary Islands  
Dorta C. Garcia (Onion Seed)  
Teneriffe, Canary Islands  
(See Adv. on Page 87)  
Fumero, Jose (Onion Seed)  
Teneriffe, Canary Islands  
Prieto, Alberto Varela (Onion Seed)  
Teneriffe, Canary Islands

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Schon, Jacob S., Ltd.  
Brunn, Czechoslovakia  
Vanek, Heinrich  
Prague, Czechoslovakia

### DENMARK

L. Daehnfeldt & Theodor Jensen, Ltd.  
Odense, Denmark  
(See Adv. on Page 97)  
Danish Seed Cultures Co., Inc.  
Kerteminde, Denmark  
Hansen, A. (Cauliflower and Cabbage)  
Kastrup, Amager, Denmark  
(See Adv. on Page 83)  
Hartmann & Co., Hjalmar  
Copenhagen, Denmark  
(See Adv. on Page 83)  
Helm-Petersen Co., I. C.  
Aarhus, Denmark  
Krogh, A.  
Odense, Denmark  
Ohlsen's Enke, J. E.  
Copenhagen, Denmark  
(See Adv. on Page 69)  
Olsen, Chr. (Cauliflower, Cabbage)  
Odense, Denmark  
(See Adv. on Page 87)  
Ostergaards Froavl  
Stensballe, Horsens, Denmark

Stallknecht & Meyer  
Copenhagen, Denmark  
Suhr Co., E.  
Copenhagen, Denmark  
(See Adv. on Page 81)

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Brown & Co., D. T.  
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Clucas, Ltd., John L.  
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(See Adv. on Page 107)  
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Camut  
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Cayeux & LeClerc  
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Desbois, A.  
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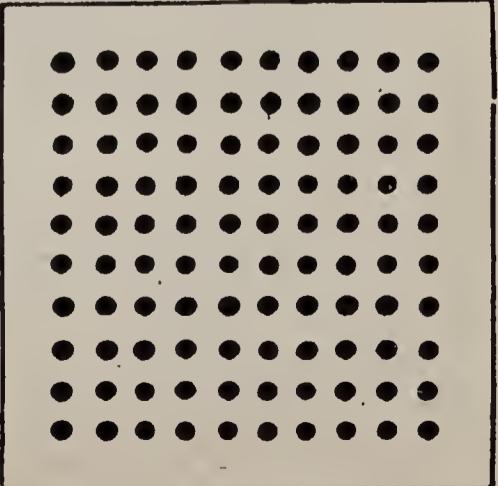
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Vilmorin Andrieux & Co.  
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## GERMANY

Beck & Co., Carl  
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Benary, Ernst  
Erfurt, Germany  
(See Adv. on Page 107)  
Bitterhoffsohn, August  
Berlin, Germany  
Fischer, Ferdinand  
Wiesbaden-Aukamm, Germany  
Gebruder, Dippe, A. G.  
Quedlinburg, Germany  
Haage, Franz Anton  
Erfurt, Germany  
Haage & Schmidt  
Erfurt, Germany  
Haubner, August  
Eisleben, Germany  
Heinemann, F. C.  
Erfurt, Germany  
Hesse & Sohn, Robt.  
Rieder, Quedlinburg, Germany  
Hofmann, Joh. Thomas  
Nurnberg, Germany  
Just, Otto  
Aschersleben, Germany  
Mann, Otto  
Leipzig-Eutritzs, Germany  
Mette, Heinr  
Quedlinburg, Germany  
(See Adv. on Page 107)  
Mohrenweiser, Chr.  
Altenweddingen, Germany  
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Scafati (Salerno), Italy  
Ditta, D'Anna Francesco  
San Giovanni A Teduccio, Italy  
Herb, M.  
Naples, Italy  
Ingegnoli, Sigg Fratelli  
Milan, Italy  
Mennella, Carmine Faraone  
Torre Del Greco (Near Naples), Italy  
(See Adv. on Page 85)  
Sgaravatti Fratelli-Sementi  
Padova, Italy

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Fujita Seed Co.  
Osaka, Japan  
Sakata & Co., T.  
Yokohama, Japan  
(See Adv. on Pages 73 and 131)  
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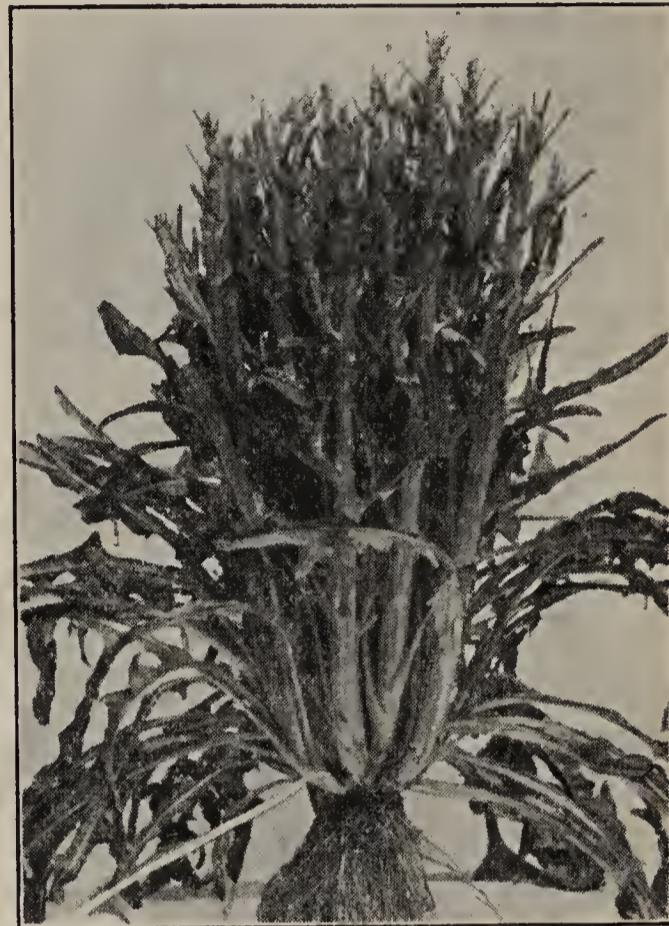
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(See Adv. on Page 87)  
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# VEGETABLE PLANTING TABLE

| Kind of vegetable        | Seeds or roots required for 100 ft. of drill | Distance for plants to stand |                 |                      | Time of planting in open ground |               |  | Ready for use after planting |
|--------------------------|--|------------------------------|-----------------|----------------------|---------------------------------|---------------|--|------------------------------|
|                          |  | One Acre                     | Rows apart      | Plants apart in rows | South                           | North         |  |                              |
|                          |  |                              |                 |                      |                                 |               |  |                              |
| Asparagus, seed.....     | 1 oz.  | 5 lbs.                       | 30 to 36 in.... | 1 to 2 ft....        | 3 in....                        | 1 in....      | Autumn or early sp'ng.....   | 2 years                      |
| Asparagus, roots.....    | 60 to 80                                     | 1 bu.                        | 3 to 5 ft....   | 12 to 24 in....      | 15 to 20 in....                 | 3 to 5 in.... | Autumn or early sp'ng.....   | 1 year                       |
| Beans, dwarf.....        | 1 pt.  | 1 bu.                        | 30 to 36 in.... | 18 to 24 in....      | 2 in....                        | 1 in....      | Feb. to April (Aug. to Sept).....                                      | 42 to 75 days                |
| Beans, pole.....         | 1/2 pt.                                      | 1/2 bu.                      | 3 to 4 ft....   | 3 to 4 ft....        | 1 in....                        | 1 in....      | Late spring.....   | 72 to 90 days                |
| Beets.....               | 1 oz.  | 6 lbs.                       | 28 to 36 in.... | 12 to 18 in....      | 2 in....                        | 1 in....      | Feb. to April (Aug. to Sept).....                                      | 45 to 60 days                |
| Brussels sprouts.....    | 1/4 oz.                                      | 2 oz.                        | 30 to 36 in.... | 24 to 30 in....      | 16 to 24 in....                 | 1/2 in....    | May and June.....  | 100 to 120 days              |
| Cabbage, early.....      | 1/4 oz.                                      | 1/4 lb.                      | 30 to 36 in.... | 24 to 30 in....      | 12 to 18 in....                 | 1/2 in....    | Oct. to Dec. ....  | 100 to 120 days              |
| Cabbage, late.....       | 1/4 oz.                                      | 1/4 lb.                      | 30 to 40 in.... | 24 to 36 in....      | 16 to 24 in....                 | 1/2 in....    | Jan. to July.....  | 90 to 110 days               |
| Carrot.....              | 1/2 oz.                                      | 2 lbs.                       | 30 to 36 in.... | 18 to 24 in....      | 2 in....                        | 1/2 in....    | May and June.....  | 110 to 120 days              |
| Cauliflower.....         | 1/4 oz.                                      | 1 oz.                        | 30 to 36 in.... | 24 to 30 in....      | 14 to 18 in....                 | 1/2 in....    | April to June.....   | 55 to 80 days                |
| Celery.....              | 1/4 oz.                                      | 1/4 lb.                      | 3 to 6 ft....   | 18 to 36 in....      | 2 in....                        | 1/8 in....    | April & June. (Start in hotbed or cold frame during Mar. or Apr.)..... | 95 to 110 days               |
| Collards.....            | 1/4 oz.                                      | 1/4 lb.                      | 30 to 36 in.... | 24 to 30 in....      | 14 to 18 in....                 | 1/2 in....    | May and June.....  | 120 to 150 days              |
| Corn, sweet.....         | 1/4 oz.                                      | 6 qts.                       | 36 to 42 in.... | 30 to 36 in....      | 4 to every 3 ft.                | 1 in....      | Feb. to April.....   | 100 to 120 days              |
| Cress, water.....        | 1/2 oz.                                      | 2 lbs.                       | Broadcast.....  | 4 to 6 ft....        | 4 every 3 ft....                | water.....    | Early spring.....  | 55 to 90 days                |
| Cucumber.....            | 1/2 oz.                                      | 2 lbs.                       | 4 to 6 ft....   | 4 to 6 ft....        | 4 every 3 ft....                | 1 in....      | Feb. and Mar. [Sept.].....   | 60 to 70 days                |
| Eggplant.....            | 1/8 oz.                                      | 1/4 lb.                      | 30 to 36 in.... | 24 to 30 in....      | 18 in....                       | 1/2 in....    | Feb. to April.....   | 50 to 70 days                |
| Endive.....              | 1 oz.  | 2 lbs.                       | 30 in....       | 18 in....            | 12 in....                       | 1/2 in....    | Feb. to April.....   | 125 to 140 days              |
| Kale, or borecole.....   | 1/4 oz.                                      | 1 lb.                        | 30 to 36 in.... | 18 to 24 in....      | 18 in....                       | 1/2 in....    | Oct. to Feb. ....  | 100 days                     |
| Kohlrabi.....            | 1/4 oz.                                      | 1 lb.                        | 30 to 36 in.... | 18 to 24 in....      | 6 in....                        | 1/2 in....    | Sept. to May.....  | 55 to 60 days                |
| Leek.....                | 1/2 oz.                                      | 4 lbs.                       | 30 to 36 in.... | 14 to 20 in....      | 4 in....                        | 1/2 in....    | March to May.....  | 50 to 70 days                |
| Lettuce.....             | 1/2 oz.                                      | 3 lbs.                       | 30 in....       | 12 to 18 in....      | 6 in....                        | 1/2 in....    | March to Sept. ....  | 120 to 150 days              |
| Muskmelon.....           | 1/2 oz.                                      | 2 lbs.                       | 6 to 8 ft.      | 6 to 8 ft.           | 4 every 4 ft....                | 1 in....      | Sept. to March.....  | 70 to 90 days                |
| Watermelon.....          | 1 oz.  | 2 lbs.                       | 8 to 12 ft.     | 8 to 12 ft.          | 4 every 6 ft....                | 1 in....      | April to June.....   | 85 to 150 days               |
| Mustard.....             | 1/4 oz.                                      | 1 lb.                        | 30 to 36 in.... | 12 to 18 in....      | 4 or 5 to ft....                | 1/4 in....    | March to May.....  | 100 to 130 days              |
| Okra.....                | 2 oz.  | 8 lbs.                       | 4 to 5 ft....   | 3 to 4 ft....        | 24 in....                       | 1 in....      | Autumn or early sp'ng.....   | 60 to 90 days                |
| Onion, seed.....         | 1 oz.  | 4 lbs.-5 lbs.                | 24 to 36 in.... | 12 to 18 in....      | 2 in....                        | 1/2 in....    | Feb. to April.....   | 90 to 140 days               |
| Onion, sets.....         | 1 qt.  | .....                        | 24 to 36 in.... | 12 to 18 in....      | 4 or 5 to ft....                | 1 in....      | Oct. to March.....   | 125 to 150 days              |
| Onion seed for sets..... | 1 lb.  | 50 lbs.                      | 24 to 36 in.... | 12 to 18 in....      | 1/2 in....                      | 1/2 in....    | Autumn and Feb. to May.....  | 100 days                     |
| Parsley.....             | 1/4 oz.                                      | 3 lbs.                       | 24 to 36 in.... | 12 to 18 in....      | 3 in....                        | 1/2 in....    | Early spring.....  | 90 days                      |
| Parsnip.....             | 1/2 oz.                                      | 3 lbs.                       | 30 to 36 in.... | 18 to 24 in....      | 2 in....                        | 1/2 in....    | Sept. to May.....  | 65 to 90 days                |
| Peas.....                | 1 pt.  | 1 bu.                        | 3 to 4 ft....   | 30 to 36 in....      | 1 in....                        | 1 in....      | March and April.....   | 130 days                     |
| Pepper.....              | 1/8 oz.                                      | 2 oz.                        | 30 to 36 in.... | 18 to 24 in....      | 1/2 in....                      | 1/2 in....    | Sept. to April.....  | 45 to 75 days                |
| Potatoes, Irish.....     | 5 lbs.                                       | 16 bu.                       | 30 to 36 in.... | 24 to 36 in....      | 4 in....                        | 4 in....      | Early plants in hotbed during March.....                               | 130 to 150 days              |
| Potatoes, sweet.....     | 3 lbs (or 75 slips)....                      | 3 to 5 ft....                | 3 to 5 ft....   | 3 to 5 ft....        | 14 in....                       | 14 in....     | March to June.....   | 90 to 150 days               |
|                          |  |                              |                 |                      |                                 |               | May and June.....  | 150 days                     |

| Kind of vegetable   | Seeds or roots required for 100 ft. of drill | One Acre   | Distance for plants to stand |                  |                      | Depth of planting | Time of planting in open ground |                |                        | Ready for use after planting |  |  |
|---------------------|--|------------|------------------------------|------------------|----------------------|-------------------|---------------------------------|----------------|------------------------|------------------------------|--|--|
|                     |  |            | Rows apart                   |                  | Plants apart in rows |                   | South                           |                | North                  |                              |  |  |
|                     |  |            | Horse cultivation            | Hand cultivation |                      |                   |                                 |                |                        |                              |  |  |
| Pumpkin.....        | 1/2 oz.                                      | 4 lbs.     | 8 to 12 ft.                  | every 6 ft.      | 1 in.                | April and May     | May to July                     | May to Sept.   | March to Sept.         | 75 to 90 days                |  |  |
| Radish.....         | 1 oz.  | 10 lbs.    | 24 to 36 in.                 | 1 in.            | 1/2 in.              | Sept. to April    | Sept. to Sept.                  | March to Sept. | Early spring           | 20 to 75 days                |  |  |
| Rhubarb, seed.....  | 1/2 oz.                                      | 36 in.     | 30 to 36 in.                 | 6 in.            | 1/2 to 1 in.         | ....              | ....                            | ....           | Autumn or early sp'ng. | 3 years                      |  |  |
| Rhubarb, roots..... | 33 roots.                                    | 3 to 5 ft. | 3 to 5 ft.                   | 3 ft.            | 2 to 3 in.           | ....              | ....                            | ....           | May and June           | 1 year                       |  |  |
| Ruta-baga.....      | 1/4 oz.                                      | 2 lbs.     | 30 to 36 in.                 | 18 to 24 in.     | 1/2 to 1 in.         | Aug. and Sept.    | ....                            | ....           | ....                   | 90 days                      |  |  |
| Salsify.....        | 1 oz.  | 8 lbs.     | 30 to 36 in.                 | 18 to 24 in.     | 6 in.                | ....              | ....                            | ....           | Early spring           | 150 days                     |  |  |
| Spinach.....        | 1 oz.  | 8 lbs.     | 30 to 36 in.                 | 12 to 18 in.     | 2 in.                | Sept. to Feb.     | Sept. or very e'ly spr'g        | ....           | ....                   | 45 days is min.              |  |  |
| Squash, summer..... | 1/2 oz.                                      | 4 lbs.     | 3 to 4 ft.                   | 3 to 4 ft.       | 4 every 4 ft.        | April to June     | April to June                   | ....           | ....                   | 65 to 70 days                |  |  |
| Squash, winter..... | 1/2 oz.                                      | 2 lbs.     | 7 to 10 ft.                  | 7 to 10 ft.      | 4 every 6 ft.        | May to July       | May to June                     | ....           | ....                   | 125 days                     |  |  |
| Tomato.....         | 1 1/2 oz.                                    | 1 1/2 oz.  | 3 to 5 ft.                   | 3 to 4 ft.       | 3 by 4 ft.           | Dec. to March     | ....                            | ....           | ....                   | 125 to 150 days              |  |  |
| Turnip.....         | 1/2 oz.                                      | 1 lb.      | 24 to 36 in.                 | 18 to 24 in.     | 2 in.                | Aug. to Oct.      | ....                            | ....           | ....                   | 45 to 90 days                |  |  |

## Helpful Hints to Vegetable Gardeners

DECIDE early how much ground you will use and what you will plant. Plow or spade before the ground freezes, if you can. A little fertilizer or manure will insure better crops.

Don't cover the seed too deep. It will germinate more quickly if only a little soil is on the seed. See full cultural directions on the packets.

Leave the garden alone until the plants come up. If you have sown bulk seeds, thin rows after plants are up an inch or two. Using seed-tape reduces thinning to a minimum.

Lima beans should be planted with the eye down and covered one inch deep. Sow radishes directly in the row with your parsley.

Order your seeds early so that you can take advantage of the first signs of spring. When you water, do it thoroughly—don't sprinkle, soak.

Plant early everything but beans, wrinkled peas, and vine crops. If soil is dry, water may be put on. Let it run slowly and don't spare the water—it's cheap.

Don't think water will take the place of thorough cultivation—it won't. You will have a better garden if you use the hoes more, and the hose less.

Weeds are garden robbers. Kill them when they are small.

For large head lettuce, thin out to at least six inches.

Plant enough to have some vegetables for home canning.

Buy only first-class, reputable materials, even if it means less of them.

Get a good spray and use it.

Hoe often to loosen the soil and hold moisture around the roots of the plants.

You cannot do good work with poor tools.

Have a good hoe, rake, fork and spade. A small hand cultivator will make you feel like a professional gardener. It will soon pay for itself, too. Dont try "watchful waiting" for bugs, worms and other vermin. Swat 'em or they will spoil your plants.

Plant small, quick growers like lettuce, radishes, etc., between the rows of larger, slower maturing sorts. In the case of early sorts such as spinach, start tomatoes, corn, etc., between the rows to occupy the ground after the former is harvested.

Never cultivate or handle any kind of beans when the vines are wet. This is the easiest way to spread a serious disease and ruin the crop.

Success against weeds means keeping them out, not taking them out after they get in. To ensure a succession of such plants as peas, beans, lettuce, radishes, beets, kohlrabi, etc., sow a fresh row every week or so.

## CHARACTERISTICS OF VEGETABLE SEEDS

The figures in the following table are intended to be approximate only, as variations occur in varieties and are also due to conditions of growth, harvest and storage.

| Vegetable            | Average Germination<br>1 Year Old Seed | Average Duration of<br>Germinating Power in<br>Years | Average Number of<br>Seeds per Ounce | Average Weight of<br>Quart of Seed in<br>Ounces | Amount Required<br>for 100 Feet<br>of Drill | Amount of Seed<br>required Per Acre | Depth of<br>Planting |
|----------------------|--|--|--------------------------------------|---|---|-------------------------------------|----------------------|
| Asparagus.....       | 90%                                    | 3  | 1,000                                | 32  | 1 oz.                                       | 5 lbs.                              | 1 in.                |
| Beans, Dwarf.....    | 90%                                    | 3  | 100                                  | 30  | 1 lb.                                       | 60 lbs.                             | 1 in.                |
| Beans, Pole.....     | 90%                                    | 3  | 100                                  | 30  | ½ lb.                                       | 30 lbs.                             | 1 in.                |
| Beet, Garden.....    | 80%                                    | 4  | 1,750                                | 10  | 1 oz.                                       | 6 lbs.                              | 1 in.                |
| Beet, Mangel.....    | 80%                                    | 4  | 1,200                                | 10  | 1 oz.                                       | 5 lbs.                              | 1 in.                |
| Brussels Sprouts.... | 85%                                    | 4  | 6,500                                | 24  | ¼ oz.                                       | 2 oz.                               | ½ in.                |
| Cabbage.....         | 85%                                    | 4  | 5,000                                | 24  | ¼ oz.                                       | 4 oz.                               | ½ in.                |
| Carrot.....          | 75%                                    | 3  | 14,000                               | 12  | ½ oz.                                       | 2 lbs.                              | ½ in.                |
| Cauliflower.....     | 75%                                    | 4  | 14,000                               | 24  | ¼ oz.                                       | 1 oz.                               | ½ in.                |
| Celery.....          | 80%                                    | 3  | 100,000                              | 16  | ¼ oz.                                       | 4 oz.                               | ⅛ in.                |
| Collards.....        | 88%                                    | 3  | 4,500                                | 24  | ¼ oz.                                       | 4 oz.                               | ½ in.                |
| Corn, Sweet.....     | 85%                                    | 3  | 125                                  | 23  | ¼ lb.                                       | 12 lbs.                             | 1 in.                |
| Cucumber.....        | 85%                                    | 5  | 1,000                                | 18  | ½ oz.                                       | 2 lbs.                              | 1 in.                |
| Eggplant.....        | 75%                                    | 4  | 5,000                                | 18  | ⅛ oz.                                       | 4 oz.                               | ½ in.                |
| Endive.....          | 80%                                    | 5  | 13,500                               | 12  | 1 oz.                                       | 2 lbs.                              | ½ in.                |
| Kale.....            | 85%                                    | 4  | 7,500                                | 24  | ¼ oz.                                       | 1 lb.                               | ½ in.                |
| Kohlrabi.....        | 85%                                    | 3  | 7,000                                | 24  | ¼ oz.                                       | 1 lb.                               | ½ in.                |
| Leek.....            | 80%                                    | 2  | 8,000                                | 18  | ½ oz.                                       | 4 lbs.                              | ½ in.                |
| Lettuce.....         | 90%                                    | 6  | 16,000                               | 14  | ½ oz.                                       | 3 lbs.                              | ½ in.                |
| Melon, Musk.....     | 85%                                    | 5  | 1,200                                | 12  | ½ oz.                                       | 2 lbs.                              | 1 in.                |
| Melon, Water.....    | 85%                                    | 5  | 225                                  | 16  | 1 oz.                                       | 2 lbs.                              | 1 in.                |
| Mustard.....         | 85%                                    | 3  | 18,000                               | 30  | ¼ oz.                                       | 1 lb.                               | ¼ in.                |
| Okra.....            | 85%                                    | 1  | 425                                  | 20  | 2 oz.                                       | 8 lbs.                              | 1 in.                |
| Onion.....           | 80%                                    | 2  | 12,500                               | 16  | 1 oz.                                       | 4 lbs.                              | ½ in.                |
| Parsley.....         | 70%                                    | 1  | 17,500                               | 12  | ¼ oz.                                       | 3 lbs.                              | ⅛ in.                |
| Parsnip.....         | 75%                                    | 1  | 2,800                                | 10  | ½ oz.                                       | 3 lbs.                              | ½ in.                |
| Peas.....            | 90%                                    | 3  | 50 to 150                            | 30  | 1 lb.                                       | 60 lbs.                             | 1 in.                |
| Pepper.....          | 75%                                    | 2  | 4,000                                | 16  | ⅛ oz.                                       | 2 oz.                               | ½ in.                |
| Pumpkin.....         | 90%                                    | 4  | 100                                  | 9   | ½ oz.                                       | 4 lbs.                              | 1 in.                |
| Radish.....          | 90%                                    | 4  | 5,000                                | 24  | 1 oz.                                       | 10 lbs.                             | ½ in.                |
| Salsify.....         | 75%                                    | 1  | 4,500                                | 12  | 1 oz.                                       | 8 lbs.                              | ½ in.                |
| Spinach.....         | 80%                                    | 3  | 3,000                                | 14  | 1 oz.                                       | 8 lbs.                              | 1 in.                |
| Squash, Summer....   | 90%                                    | 4  | 300                                  | 20  | ½ oz.                                       | 4 lbs.                              | 1 in.                |
| Squash, Winter....   | 90%                                    | 4  | 125                                  | 14  | ½ oz.                                       | 2 lbs.                              | 1 in.                |
| Tomato.....          | 85%                                    | 3  | 7,500                                | 10  | ⅛ oz.                                       | 1½ oz.                              | ½ in.                |
| Turnip.....          | 90%                                    | 4  | 10,000                               | 24  | ½ oz.                                       | 1 lb.                               | ¼ in.                |

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## IMPORTS AND PRICES OF VEGETABLE SEEDS

*Compiled from figures published by Department of Commerce.*

| Kind of Seed | Import Duty Per lb. | Imports—Calendar Years |           |           |           |         | Average Prices |         |         |         |         |
|--------------|---------------------|------------------------|-----------|-----------|-----------|---------|----------------|---------|---------|---------|---------|
|              |                     | 1930                   | 1931      | 1932      | 1933      | 1934*   | Per lb.        | Per lb. | Per lb. | Per lb. | Per lb. |
|              |                     | Cents                  | Lbs.      | Lbs.      | Lbs.      | Lbs.    | 1930           | 1931    | 1932    | 1933    | 1934*   |
| Beet, gdn.   | 4                   | 343,877                | 351,240   | 178,522   | 572,073   | 177,339 | .176           | .155    | .129    | .129    | .161    |
| Beet, mgl.   | 4                   | 318,126                | 366,927   | 137,526   | 244,501   | 70,826  | .111           | .093    | .082    | .071    | .086    |
| Cabbage..    | 12                  | 341,897                | 250,180   | 172,452   | 173,517   | 72,996  | .584           | .499    | .491    | .392    | .426    |
| Carrot....   | 4                   | 20,798                 | 15,751    | 34,492    | 60,476    | 18,414  | .572           | .382    | .290    | .332    | .492    |
| Califlw... . | 25                  | 18,826                 | 17,501    | 13,213    | 11,349    | 4,971   | 6.327          | 5.747   | 5.806   | 5.472   | 7.098   |
| Kale.... .   | 6                   | 72,649                 | 41,996    | 44,923    | 48,444    | 22,280  | .177           | .187    | .158    | .165    | .183    |
| Kohlrabi..   | 8                   | 15,249                 | 19,359    | 12,008    | 15,096    | 5,211   | .414           | .324    | .297    | .306    | .414    |
| Onion....    | 15                  | 203,620                | 190,011   | 230,362   | 160,180   | 10,829  | 1.487          | .830    | .583    | .674    | .534    |
| Parsley...   | 2                   | 348,852                | 308,280   | 179,209   | 43,732    | 83,886  | .109           | .066    | .045    | .083    | .041    |
| Parsnip...   | 4                   | 18,351                 | 15,620    | 13,322    | 24,045    | 13,243  | .140           | .130    | .105    | .110    | .133    |
| Pepper...    | 15                  | 2,220                  | 4,038     | 1,012     | 961       | 859     | .918           | .733    | .727    | .702    | .868    |
| Radish...    | 6                   | 872,765                | 695,682   | 565,102   | 444,789   | 172,016 | .172           | .148    | .133    | .131    | .160    |
| Rutabaga.    | 5                   | 177,578                | 169,672   | 92,943    | 288,427   | 48,222  | .108           | .118    | .108    | .085    | .091    |
| Spinach...   | 1                   | 2,762,797              | 2,030,618 | 2,386,496 | 3,783,364 | 751,567 | .092           | .085    | .077    | .085    | .094    |
| Turnip...    | 5                   | 1,194,633              | 1,090,140 | 482,057   | 1,211,931 | 266,621 | .123           | .109    | .096    | .080    | .108    |

\*Six months ended June 30, 1934. All prices are F. O. B. port of origin and not including duty.

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Rhododendrons, Azaleas, Kalmias, Huckleberries, Cranberries and all plants of the same Ericaceous Family will flourish only when the soil is of the proper chemical condition which this class of material demands.

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TRADE PRICE  
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SEND FOR CIRCULAR

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Beet  
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**Use the TRADE MARK SECTION**

starting page 50—for the leading Trade Marks and Brands used  
by the Seedsmen and Manufacturers  
of Allied Lines.

## 1935 ALL-AMERICA WINNERS

## FLOWERS

| Variety          | Name   | Award                        | Entered for Trial by  |
|------------------|--|------------------------------|---|
| Cosmos           | Klondyke Hybrid<br>Orange Flare                    | Grand Champion<br>Gold Medal | Bodger Seeds, Ltd., El Monte, Calif.  |
| Nasturtium       | Scarlet Gleam                                      | Gold Medal                   | Bodger Seeds, Ltd., El Monte, Calif.  |
| Marigold         | Yellow Supreme                                     | Gold Medal                   | Livingston Seed Co.,<br>Columbus, Ohio  |
| Calendula        | Orange Shaggy                                      | Gold Medal                   | Waller-Franklin Seed Co.,<br>Guadalupe, Calif.  |
| Zinnia           | Fantasy Mixture-                                   | Award of Merit               | Bodger Seeds, Ltd., El Monte, Calif.  |
| Petunia          | Martha Washington                                  | Award of Merit               | Waller-Franklin Seed Co.,<br>Guadalupe, Calif.  |
| Nasturtium       | Bodger's Glorious<br>Gleam Hybrids                 | Award of Merit               | Bodger Seeds, Ltd., El Monte, Calif.  |
| Phlox            | Gigantea Art Shades                                | Award of Merit               | Waller-Franklin Seed Co.,<br>Guadalupe, Calif.  |
| Dianthus         | Lacinatus Splendens                                | Special Mention              | { Bodger Seeds, Ltd., El Monte, Calif.<br>{ F. C. Heineman, Erfurt, Germany.  |
| Verbena          | Nana Erecta Violet<br>Bouquet                      | Special Mention              | Waller-Franklin Seed Co.,<br>Guadalupe, Calif.  |
| Celosia          | Pyramidalis Flame of<br>Fire                       | Special Mention              | T. Sakata & Co., Yokohama, Japan.   |
| Anchusa          | Annual Blue Bird                                   | Special Mention              | Watkins & Simpson,<br>London, England.  |
| African Marigold | Golden Beauty, Yellow<br>Beauty, Primrose<br>Queen | Special Mention              | Hurst & Son, London, England.   |
| Antirrhinum      | Rust Proof   | Certificate of<br>Honor      | F. Lagomarsino & Sons,<br>Sacramento, Calif.<br>Waller-Franklin Seed Co.,<br>Guadalupe, Calif.<br>Ferry-Morse Seed Co.,<br>San Francisco, Calif.<br>Bodger Seeds, Ltd.,<br>El Monte, Calif.<br>Wm. Macdonald Seed Co.,<br>Santa Maria, Calif. |

## VEGETABLES

|            |                                       |                 |   |
|------------|---------------------------------------|-----------------|---|
| Mustard    | Southern Giant Curled<br>Longstanding | Gold Medal      | Abraham Sluis, Ltd.,<br>Enkhuizen, Holland.         |
| Tomato     | Asgrow Scarlet Dawn                   | Gold Medal      | Associated Seed Growers, Inc.,<br>New Haven, Conn.  |
| Cucumber   | Straight Eight                        | Gold Medal      | Ferry-Morse Seed Co.,<br>San Francisco, Calif.      |
| Cucumber   | Colorado                              | Award of Merit  | J. C. Robinson Seed Co.,<br>Waterloo, Nebr.         |
| Cantaloupe | *Sunkist                              | Award of Merit  | J. C. Robinson Seed Co.,<br>Waterloo, Nebr.         |
| Tomato     | Burpee's Globe                        | Award of Merit  | W. Atlee Burpee Co.,<br>Philadelphia, Pa.           |
| Spinach    | Viking                                | Award of Merit  | Sluis en Groot, Enkhuizen, Holland.                 |
| Sweet Corn | Hybrid Bantam                         | Award of Merit  | Sioux City Seed Co., Sioux City, Ia.                |
| Lettuce    | Longstanding White<br>Boston          | Special Mention | Francis C. Stokes & Co., Inc.,<br>Philadelphia, Pa. |
| Cabbage    | Just Right                            | Special Mention | Sluis Brothers, Ltd.,<br>Enkhuizen, Holland.        |
| Pepper     | Asgrow King                           | Special Mention | Associated Seed Growers, Inc.,<br>New Haven, Conn.  |
| Radish     | White Pearl                           | Special Mention | Sluis Brothers, Ltd.,<br>Enkhuizen, Holland.        |

\* "Sunkist" Cantaloupe has been renamed "Imperial"

(Continued on page 96)

# SOO-BRED BANTAM

## An All American Hybrid Sweet Corn



True Bantam  
**QUALITY**

True Evergreen  
**YIELD**

### AWARD OF MERIT 1935 ALL AMERICAN SEED TRIALS FOR CANNERS

Production cost as low as the biggest Evergreens.  
Quality you'll be glad to place your labels on.

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16 rowed ears of real size to attract attention.  
Tenderness and flavor that insure enthusiastic satisfaction.

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An item sure to get a dependable volume of repeat orders.  
Certain to make friends for those who introduce it.

1934 crop now gone. Contracts for 1935  
crop should be placed early.

# SIOUX CITY SEED COMPANY

SIOUX CITY                    IOWA

SPECIALIZING IN HYBRID SWEET AND FIELD CORNS

## 1934 ALL-AMERICA WINNERS (Continued)

## FLOWERS

| Variety         | Name                          | Award           | Entered for Trial by  |
|-----------------|-------------------------------|-----------------|---|
| Calendula       | Chrysanth or Sunshine         | Gold Medal      | { W. Atlee Burpee Co.,<br>Philadelphia, Pa., and<br>Bodger Seeds, Ltd.,<br>El Monte, Calif. |
| Petunia         | Pink Gem                      | Gold Medal      | Waller-Franklin Seed Co.,<br>Guadalupe, Calif.  |
| Larkspur        | Rosemond                      | Gold Medal      | Bodger Seeds, Ltd., El Monte, Calif.  |
| Linaria         | Fairy Bouquet                 | Gold Medal      | Watkins & Simpson, Ltd.,<br>London, England.  |
| Verbena         | Dannebrog                     | Award of Merit  | L. Daehnfeldt & Theodor Jensen,<br>Odense, Denmark.   |
| Aster           | Los Angeles                   | Award of Merit  | Bodger Seeds, Ltd., El Monte, Calif.  |
| Canterbury Bell | Liberty Bell                  | Award of Merit  | Waller-Franklin Seed Co.,<br>Guadalupe, Calif.  |
| Petunia         | Maximum All-Double<br>Fringed | Award of Merit  | { Ferry-Morse Seed Co., Detroit, Mich.<br>{ T. Sakata & Co., Yokohama, Japan.               |
| Hunnemania      | Sunlite                       | Award of Merit  | Bodger Seeds, Ltd., El Monte, Calif.  |
| Marigold        | Dwarf<br>Monarch Strain       | Award of Merit  | { Bodger Seeds, Ltd., El Monte, Calif.<br>{ Hurst & Sons, London, England.                  |
| Larkspur        | Blue Bell                     | Special Mention | Bodger Seeds, Ltd., El Monte, Calif.  |
| Verbena         | Spectrum Red                  | Special Mention | Waller-Franklin Seed Co.,<br>Guadalupe, Calif.  |
| Aster           | Silvery Rose                  | Special Mention | Bodger Seeds, Ltd., El Monte, Calif.  |
| Chrysanthemum   | Eldorado                      | Special Mention | { Bodger Seeds, Ltd., El Monte, Calif.<br>{ Hurst & Sons, London, England.                  |
| Scabiosa        | Giant Hybrids Mixed           | Special Mention | W. Atlee Burpee Co.,<br>Philadelphia, Pa.   |

## VEGETABLES

|            |                               |                 |  |
|------------|-------------------------------|-----------------|--|
| Radish     | Glowing Ball                  | Gold Medal      | Zwaan & Van der Molen,<br>Voorburg, Holland.       |
| Beet       | Asgrow Wonder                 | Gold Medal      | Associated Seed Growers, Inc.,<br>New Haven, Conn. |
| Carrot     | Morse's Bunching              | Gold Medal      | Ferry-Morse Seed Co.,<br>San Francisco, Calif.     |
| Beet       | Perfected Detroit             | Award of Merit  | J. M. Lupton & Son,<br>Mattituck, L. I., New York. |
| Cabbage    | Penn State Ballhead           | Award of Merit  | J. M. Lupton & Son,<br>Mattituck, L. I., New York. |
| Endive     | Batavian Full Heart           | Award of Merit  | Vilmorin, Andrieux & Co.,<br>Paris, France.        |
| Cucumber   | The Barteldes                 | Award of Merit  | The Barteldes Seed Co.,<br>Lawrence, Kansas.       |
| Parsley    | Peerless                      | Award of Merit  | Zwaan & Van der Molen,<br>Voorburg, Holland.       |
| Beet       | Good for All                  | Special Mention | Ferry-Morse Seed Co.,<br>San Francisco, Calif.     |
| Beet       | Little Marvel                 | Special Mention | Zwaan & Van der Molen,<br>Voorburg, Holland.       |
| Sweet Corn | Kingscross Bantam             | Special Mention | Northrup, King & Co.,<br>Minneapolis, Minn.        |
| Sweet Corn | Stowell's Evergreen<br>Hybrid | Special Mention | Associated Seed Growers, Inc.,<br>New Haven, Conn. |

(Continued on page 98)



DAEHNFELDT'S VERBENA DANNEBORG

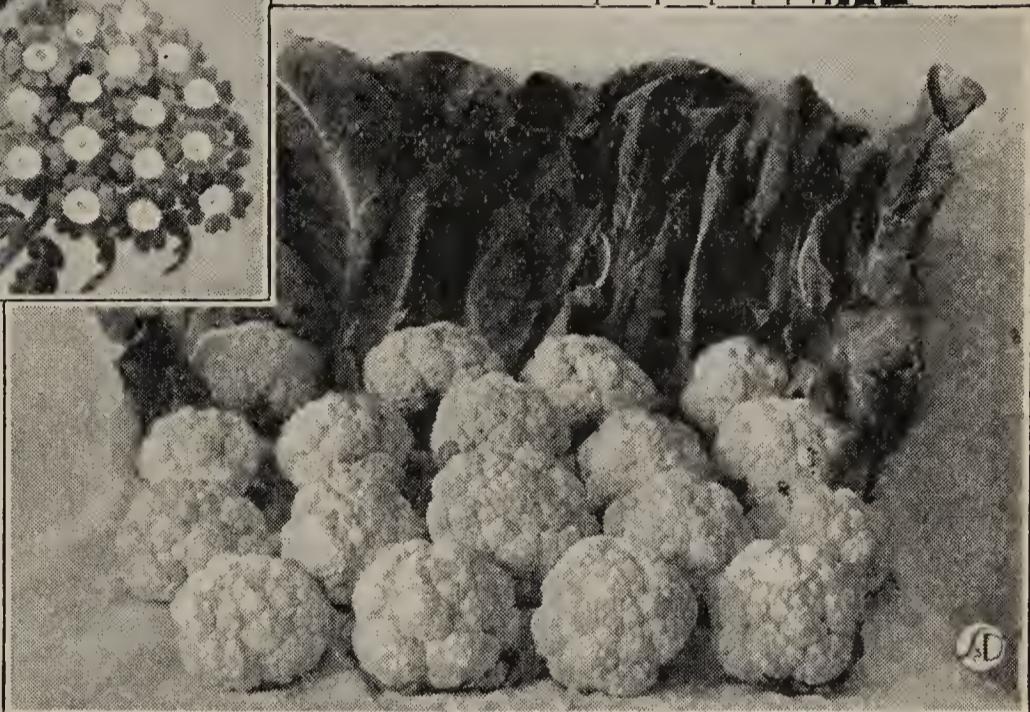
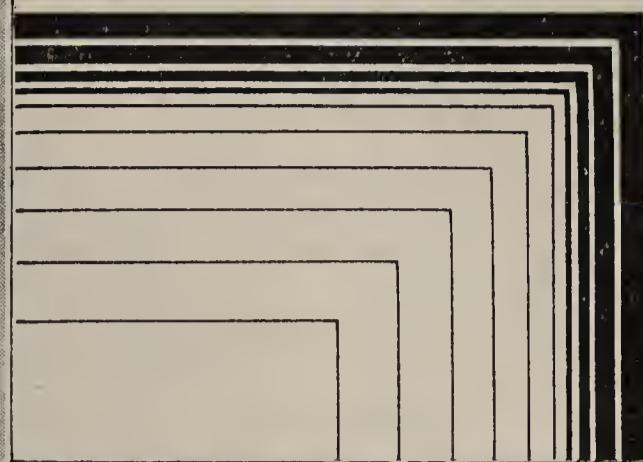
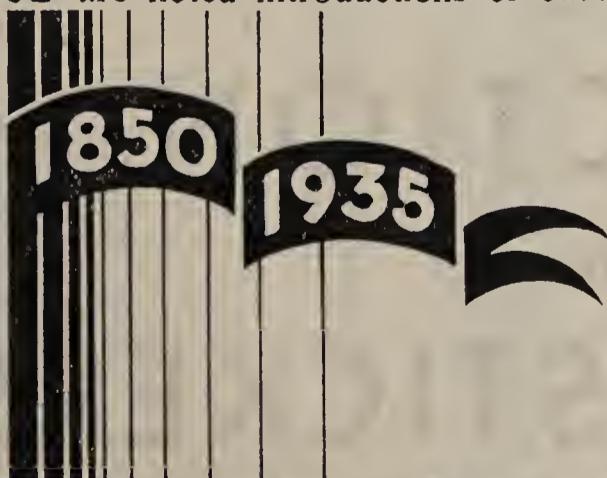
Verbena Dannebrog is OUR creation and ORIGINAL seeds of this beautiful novelty can be obtained from us ONLY. Unfortunately our 1934 crop was extremely limited due to poor growing conditions - and as the demand has been heavy we are entirely sold out.

It will of course be of the utmost help to us to have orders on file before our planting is done.

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You will then be sure to get your seeds direct from the ORIGINATOR.

Also CALENDULA JEWEL and PANSY ST. KNUD are noted introductions of ours.



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In the line of VEGETABLE SEEDS we beg to remind you of our long list of REAL OUTSTANDING strains which have been awarded 1<sup>st</sup> class certificates at competitive trials conducted under control of the Danish government.

Such results can be attained by painstaking and scientific breeding ONLY. Through breeding you get the QUALITY - and quality you MUST have.

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And you are sure to get the RIGHT quality.

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BREEDERS AND GROWERS  
**ODENSE - DENMARK**

## 1933 ALL-AMERICA WINNERS (Continued)

## FLOWERS

| Variety    | Name                           | Award          | Entered for Trial by                        |
|------------|--------------------------------|----------------|---|
| Marigold   | Guinea Gold                    | Gold Medal     | .....                                       |
| Nasturtium | Double Golden Gleam            | Gold Medal     | Bodger Seeds, Ltd., El Monte, Calif.        |
| Campanula  | Annual Canterbury Bells, Mixed | Gold Medal     | Waller-Franklin Seed Co., Guadalupe, Calif. |
| Verbena    | Beauty of Oxford, Hybrid       | Award of Merit | Waller-Franklin Seed Co., Guadalupe, Calif. |
| Lupine     | Hartwegi Giants Mixed          | Award of Merit | Waller-Franklin Seed Co., Guadalupe, Calif. |
| Pansy      | Dwarf Swiss Giants             | Award of Merit | Vaughan's Seed Store, Chicago, Ill.         |
| Delphinium | Annual Cambridge Blue          | Award of Merit | Waller-Franklin Seed Co., Guadalupe, Calif. |
| Asters     | Wilt Resistant                 | Award of Merit | Bodger Seeds, Ltd., El Monte, Calif.        |
| Verbena    | Lavender Glory                 | Award of Merit | Waller-Franklin Seed Co., Guadalupe, Calif. |
| Venidium   | Fastuosum                      | Award of Merit | Bodger Seeds, Ltd., El Monte, Calif.        |

## VEGETABLES

|            |                             |                |   |
|------------|-----------------------------|----------------|---|
| Tomato     | Pritchard or Scarlet Topper | Gold Medal     | U. S. Dept. of Agriculture.                     |
| Cantaloupe | Honey Rock                  | Gold Medal     | J. C. Robinson Seed Co., Waterloo, Nebr.        |
| Bean       | New Stringless Green Pod    | Gold Medal     | Associated Seed Growers, Inc., New Haven, Conn. |
| Carrot     | Asgrow Imperator            | Award of Merit | Associated Seed Growers, Inc., New Haven, Conn. |
| Beet       | Ohio Canner                 | Award of Merit | J. M. Lupton & Son, Mattituck, L. I., New York. |
| Cucumber   | Clark's Special             | Award of Merit | Associated Seed Growers, Inc., New Haven, Conn. |
| Cantaloupe | Improved Perfecto           | Award of Merit | Garwood & Woodside, Rocky Ford, Colo.           |
| Watermelon | Graystone                   | Award of Merit | H. G. Hastings Co., Atlanta, Ga.                |
| Bean       | Asgrow Valentine            | Award of Merit | Associated Seed Growers, Inc., New Haven, Conn. |
| Spinach    | Nobel                       | Award of Merit | Zwaan & Van der Molen, Voorburg, Holland.       |

For Your  
**PROTECTION**  
and Ours  
**USE THE STICKERS**  
IN THE BACK OF THE BOOK FACING  
THE BACK COVER



Asgrow Stringless Green Pod  
Bean  
Gold Medal 1933

## An All-American Trio



Asgrow Scarlet Dawn Tomato  
Gold Medal 1935



Asgrow Wonder Beet  
Gold Medal 1934

Asgrow Seeds Are Well Bred.

### Associated Seed Growers, Inc.

Breeders and Growers of Vegetable Seeds Since 1856

NEW HAVEN, CONN.

Breeding Stations and Production Branches in Eleven States

Distributing Branch Warehouses at Atlanta, Ga.; Indianapolis, Ind., and Salinas, Calif.

### SEED BAG TRIERS

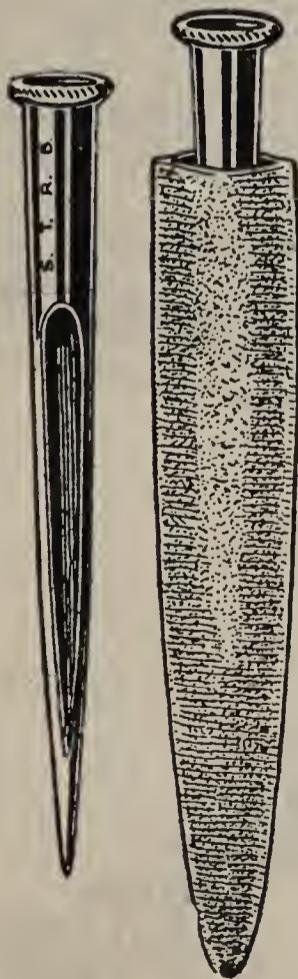
QUICK, SAFE  
CONVENIENT

Seed triers for quick, convenient drawing of samples without opening or tearing bag. Brass with steel point heavily nickel plated, with solid leather protector.

5 or 6 inches long,  
with leather  
shield,  
Price \$1.00 each,  
\$10.50 per doz.

9 in. long, with  
metal shield,  
Price \$2.00 each.

12 in. long.  
Price \$3.00 each



1935  
*All American*  
AWARD  
of MERIT

### CUCUMBER—Colorado

A long white spine, intense dark green, slender variety. It is quite early, prolific and though longer than Clark's Special, is not as lengthy as The Vaughan. Flesh is good, very similar to The Vaughan. Raised and introduced by J. C. Robinson Seed Co., Waterloo, Nebraska.

### CANTALOUP—Imperial

Cross from Honey Ball and Hale's Best by the introducer, Clyde Fluke of C. H. Weaver & Co., Brawley, California. Can be thoroughly vine ripened and still shipped long distances. It has orange flesh, a netted yellow fruit of Rocky Ford size, with unusual shipping quality and carrying excellent flavor and texture. The best cropper in a hot, dry season, and it almost never shows spoilage in the field even when quite ripe. Grown and entered by J. C. Robinson Seed Co., Waterloo, Nebraska.

J.C. Robinson

SEED COMPANY  
WATERLOO ♦ NEBRASKA

SEED TRADE REPORTING BUREAU  
325 W. Huron St. CHICAGO, ILL.

# GROWERS FLOWER SEEDS

## CALIFORNIA

**Bodger Seeds, Ltd.**  
**El Monte, Los Angeles County, Calif.**  
 (See Adv. on Page 33)

**Pieters-Wheeler Seed Co. (Sweet Peas)**  
**Gilroy, Calif.**  
 (See Adv. on Page 7)

**Rohnert Co., Waldo (Sweet Peas)**  
**Gilroy, Calif.**  
 (See Adv. on Page 101)

**Waller-Franklin Seed Co.**  
**Guadalupe, Calif.**  
 (See Adv. on Page 101)

Zvolanek, Ant. C. (Sweet Peas)  
 Lompoc, Calif.

Diener Co., Inc., Richard  
 Oxnard, Calif.

Shaw's Hybridizing Gardens  
 Petaluma, Calif.

**Ferry-Morse Seed Co. (Sweet Peas)**  
**San Francisco, Calif.**  
 (See Adv. on Page 76)

**Braslan Seed Growers Co., Inc.**  
**San Jose, Calif.**  
 (See Adv. on Page 93)

Kimberlin Seed Co. (Sweet Peas)  
 San Jose, Calif.

**MacDonald Seed Co., The Wm.**  
**Santa Maria, Calif.**  
 (See Adv. on Page 102)

## CANADA

**Steele, Briggs Seed Co., Ltd.**  
**Toronto, Canada**  
 (See Adv. on Page 35)

**Sunset Seed Co., Ltd.**  
 Victoria, B. C., Canada

## COLORADO

Colorado Seed Co. (Evergreen Tree Seed  
 and Columbines)  
 Denver, Colo.

Rocky Mountain Seed Co.  
 Denver, Colo.

**Grand Junction Seed Co. (Zinnias)**  
**Grand Junetion, Colo.**  
 (See Adv. on Page 71)

Burrell Seed Growers Co.  
 Rocky Ford, Colo.

## CONNECTICUT

**Comstock, Ferre & Co.**  
**Wethersfield, Conn.**  
 (See Adv. on Page 91)

## GEORGIA

**Athens Seed Co.**  
**Athens, Ga.**  
 (See Adv. on Page 57)

## IDAHO

Woodacres, Fred B. Wood  
 Boise, Idaho

## ILLINOIS

**American Bulb Company**  
**Chicago, Ill.**  
 (See Adv. on Page 111)

Barnard Co., W. W.  
 Chicago, Ill.

Vaughan's Seed Store  
 Chicago, Ill.

Condon Bros. Seedsmen  
 Rockford, Ill.

**Standard Seed Farms Company**  
**WHOLESALE GROWERS GARDEN SEEDS**  
**Stockton California**

**BEET**

**CARROT**

**CELERY**

**ENDIVE**

**LETTUCE**

**MUSTARD**

**ONION**

**PARSLEY**

**PARSNIP**

**RADISH**

**SALSIFY**

**SWEET PEAS**

**SWISS CHARD**

**Cable Address**  
**"Stanseed"**

**Post Office**  
**Box 572**



## **"MERIT" FLOWER SEEDS 1934 Novelties**

Petunia Nana Compacta Martha Washington  
 Calendula Orange Shaggy  
 Stock Double Giant Excelsior Deep Rose  
 New Verbena Nana Erecta Violet Bouquet  
 Annual Canterbury Bell Mission Bell  
 Annual Canterbury Bell Blue Bell  
 Delphinium Bellamosum Improved  
 New Petunia Giant Double Fringed Heliotrope

New Petunia Giant Double Fringed Crimson  
 Aster Single Imperial Red  
 Aster California Giant Sunshine White  
 Aster California Giant Sunshine Lavender  
 Aster California Giant Sunshine Rose  
 Aster California Giant Sunshine Shell Pink

**WALLER - FRANKLIN SEED CO.**  
**GUADALUPE, CALIFORNIA, U. S. A.**

## **WALDO ROHNERT COMPANY**

**GILROY CALIFORNIA**

REGISTERED CABLE AND TELEGRAPHIC ADDRESS, ROHNERT, HOLLISTER

### **—Specialties—**

|                  |         |
|------------------|---------|
| BEET             | MUSTARD |
| CHARD            | ONION   |
| CARROT           | PARSLEY |
| CELERY           | PARSNIP |
| ENDIVE           | RADISH  |
| LETTUCE          | SALSIFY |
| MIXED SWEET PEAS |         |

Contract Prices for Crop 1935 Mailed on Application

## **WHOLESALE SEED GROWERS**

**FORTY-TWO YEARS OF SEED GROWING**

**GROWERS FLOWER SEEDS—Continued****LOUISIANA**

Kalmbach-Burckett Co., Inc.  
Shreveport, La.

**MASSACHUSETTS**

Donovan, James  
Saugus, Mass.

**NEW JERSEY**

Leonard, I. & J. L.  
Ionia, N. J.  
Forbes & Co., Alex  
Newark, N. J.

**NEW YORK**

Harris Co., Joseph  
Coldwater, N. Y.  
Page Seed Co.  
Greene, N. Y.  
(See Adv. on Page 57)

**Herbst Bros., Inc.**  
**New York, N. Y.**  
(See Adv. on Pages 73 and 131)

Stumpp & Walter Co.  
New York, N. Y.  
Vaughan's Seed Store  
New York, N. Y.

**NORTH CAROLINA**

Buxton White Seed Co.,  
Asheville, N. C.

**OHIO**

**McCullough Seed Co., The J. Chas.**  
**Cincinnati, Ohio**  
(See Adv. on Page 65)

**OREGON**

Ellis, Mrs. Merton G. (Pansy)  
Canby, Ore.  
Harrold's Pansy Gardens (Pansy)  
Grants Pass, Ore.  
Steele's Pansy Gardens (Pansy)  
Portland, Ore.  
Hood Acres  
Troutdale, Ore.

**PENNSYLVANIA**

**Landreth Seed Co., D.**  
**Bristol, Pa.**  
(See Adv. on Page 3)  
**Burpee Co., W. Atlee**  
**Philadelphia, Pa.**  
(See Adv. on Page 103)

**TEXAS**

Nicholson Seed Co., Robt.  
Dallas, Texas

**VERMONT**

Hawkins, Budd D.  
Reading, Vt.

**WISCONSIN**

Toole, W. A.  
Baraboo, Wis.  
Rugowski Seed Co., J. K.  
Manitowoc, Wis.  
Jung Seed Co., J. W.  
Randolph, Wis.

## **FLOWER SEEDS—CALIFORNIA'S BEST** **SPECIALIZING IN FLORIST'S STRAINS**

We are wholesale growers of the  
Highest Quality in Annual and Perennial flower  
seeds for the discriminating trade

ASK FOR OUR CATALOG AND PRICES

**THE WILLIAM MACDONALD SEED CO.**

Exclusive Flower Seed Growers

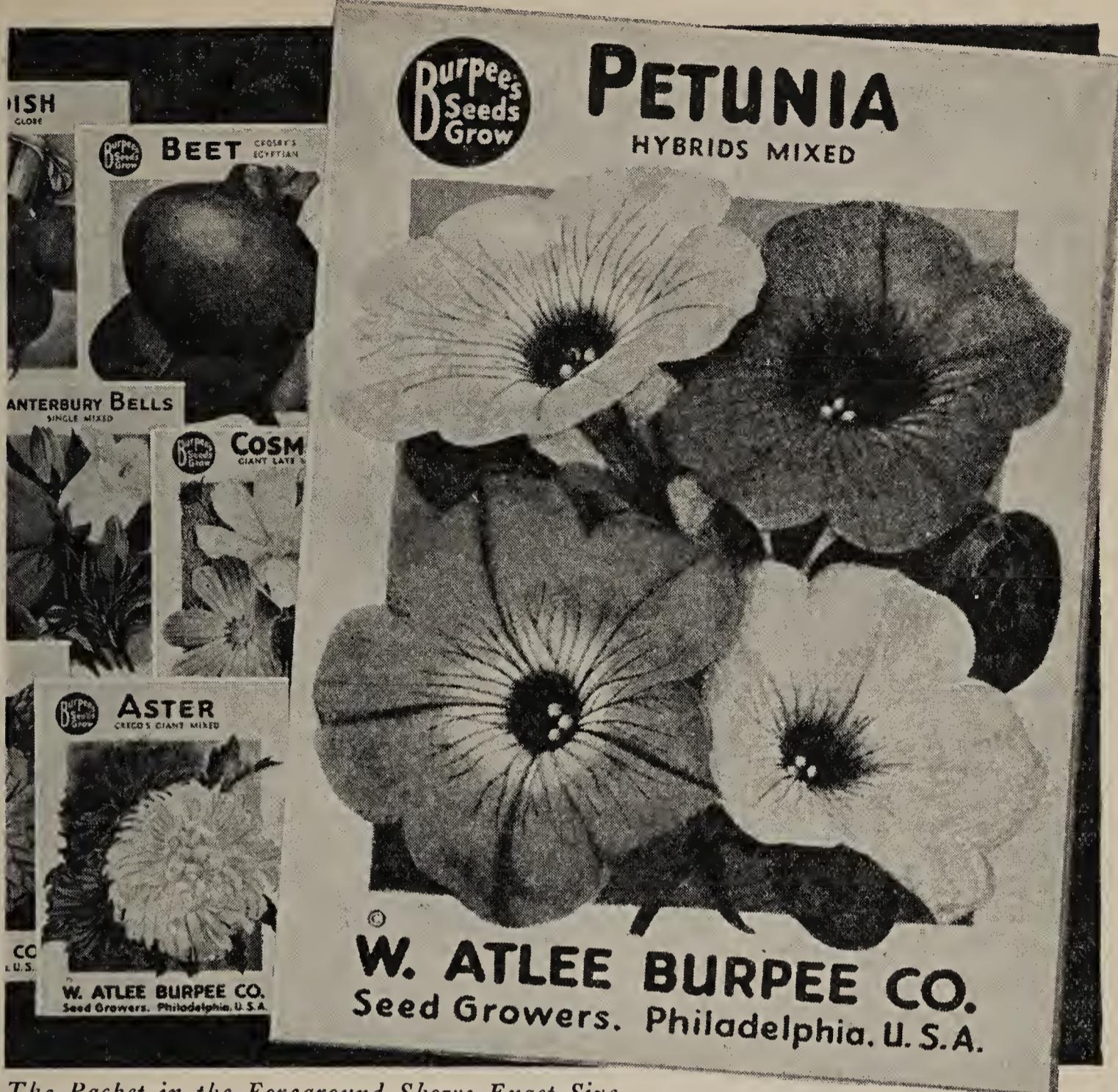
**SANTA MARIA**

**CALIFORNIA**

**Use a Sticker (Page 181) When Writing Advertisers**

They stick with a lick, unlike the mule which  
you lick with a stick. Thanks, it will help us

**HELP YOU**



*The Packet in the Foreground Shows Exact Size*

Be Sure You Stock These Fast-Selling

# Burpee's Seeds in Colored Packets

RETAILING AT 10c EACH—LIBERAL DISCOUNTS

Here's a source of extra business you can't overlook. Burpee's most popular flower and vegetable seeds are now offered in attractive 10c packets, printed in full colors. Last year was the first time Burpee's seeds had been sold to the public in this form through the trade. There is a tremendous market for this business. Get your share of it by carrying a complete stock.

Write for Burpee's Red List

which contains a full list of Burpee's Seed in packets, as well as a list of all Burpee's Sweet Peas and other flower and vegetable seeds, with wholesale prices for seedsmen and dealers.

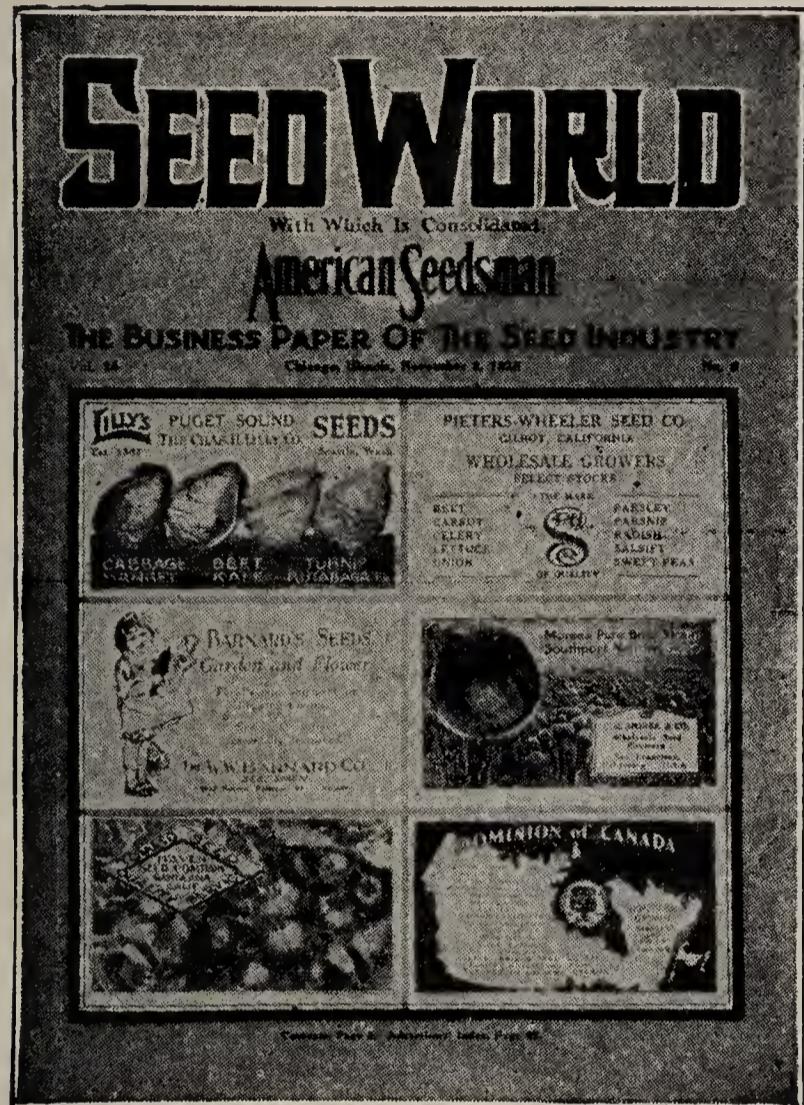
**W. ATLEE BURPEE CO.**  
**792 Burpee Bldg.** **Philadelphia**

# LONGEVITY OF FLOWER SEEDS

**Prepared by Bodger Seeds, Ltd., El Monte, California**

| <b>Flowers</b>                         | <b>Number<br/>of Seeds<br/>to the<br/>Ounce</b> | <b>Lon-<br/>gevity<br/>(Years)</b> | <b>Period<br/>of<br/>Germi-<br/>nation<br/>(Days)</b> | <b>Flowers</b>                       | <b>Number<br/>of Seeds<br/>to the<br/>Ounce</b> | <b>Lon-<br/>gevity<br/>(Years)</b> | <b>Period<br/>of<br/>Germi-<br/>nation<br/>(Days)</b> |
|--|---|------------------------------------|---|--------------------------------------|---|------------------------------------|---|
| Achillea (The Pearl)....               | 200,000   | 5                                  | 10-15   | Helichrysum .....                    | 40,000  | 1-2                                | 5-10  |
| Aconitum .....                         | 10,000  | 3                                  | 180   | Heliotrope .....                     | 55,000  | 1-2                                | 30  |
| Acroclinium .....                      | 9,000   | 3                                  | 12  | Hesperis .....                       | 16,000  | 3-4                                | 15  |
| Ageratum .....                         | 225,000   | 4                                  | 5-10  | Hibiscus .....                       | 4,000   | 3-4                                | 5-7   |
| Agrostemma .....                       | 60,000  | 4                                  | 8-18  | Hollyhock .....                      | 3,500   | 3-4                                | 10-30   |
| Alyssum .....                          | 60,000  | 4                                  | 5-8   | Humulus .....                        | 2,500   | 1-2                                | 8-10  |
| Amaranthus .....                       | 30,000  | 4-5                                | 5-10  | Impatiens .....                      | 60,000  | 2                                  | 15-30   |
| Anchusa (Italica)....                  | 1,200   | 3                                  | 30  | Ipomea (Grandiflora)....             | 100   | 3-4                                | 10-12   |
| Anemone .....                          | 40,100  | 2                                  | 20-60   | Kochia .....                         | 50,000  | 1-2                                | 10  |
| Antirrhinum .....                      | 150,000   | 3-4                                | 8-12  | Larkspur (Annual)....                | 14,000  | 2-3                                | 20  |
| Aquilegia .....                        | 17,500  | 2                                  | 12-60   | Lathyrus (Latifolius)....            | 600   | 3-4                                | 60  |
| Asparagus (Plum. &<br>Spren.) .....    | 650   | 1-2                                | 15-30   | Lavender .....                       | 30,000  | 1-2                                | 30  |
| Aster .....                            | 12,000  | 1-2                                | 5-10  | Linum .....                          | 9,000   | 5                                  | 10-15   |
| Balloon Vine.....                      | 400   | 3-4                                | 15  | Lobelia .....                        | 750,000   | 3-4                                | 5-20  |
| Balsam Flower.....                     | 3,500   | 5-6                                | 8-10  | Lupinus .....                        | 1,800   | 3-4                                | 5-10  |
| Balsam Apple.....                      | 250   | 4                                  | 30  | Lychnis .....                        | 65,000  | 2-3                                | 10-15   |
| Baptisia .....                         | 2,500   | 3-4                                | 30-60   | Marigold (African)....               | 9,000   | 2-3                                | 5-10  |
| Bellis .....                           | 200,000   | 2-3                                | 5-10  | Marigold (French)....                | 10,000  | 2-3                                | 5-10  |
| Blanket Fl. (Gaillardia<br>Gf.) .....  | 10,000  | 4                                  | 20  | Marvel of Peru.....                  | 350   | 2-3                                | 8-20  |
| Boltonia .....                         | 100,000   | 5                                  | 30  | Matricaria .....                     | 150,000   | 2-3                                | 10-12   |
| Brachycome .....                       | 150,000   | 3-4                                | 10  | Maurandia .....                      | 70,000  | 2                                  | 15-30   |
| Browallia .....                        | 70,000  | 2-3                                | 5-10  | Mesembryanthemum .....               | 200,000   | 3-4                                | 5-10  |
| Calendula .....                        | 3,000   | 4-5                                | 5-10  | Mignonette .....                     | 30,000  | 2-4                                | 8-10  |
| Calliopsis .....                       | 100,000   | 2-3                                | 8-10  | Mimosa .....                         | 4,500   | 2-3                                | 10-15   |
| Campanula (Medium)....                 | 125,000   | 3                                  | 10-15   | Mimulus .....                        | 1,000,000                                       | 3-4                                | 5-10  |
| Canary Bird Flower....                 | 400   | 3                                  | 10  | Myosotis .....                       | 55,000  | 2                                  | 10-15   |
| Candytuft .....                        | 10,000  | 3                                  | 5-10  | Nasturtium .....                     | 250   | 7-8                                | 8-10  |
| Canna .....                            | 100   | 3                                  | 5-10  | Nemesia .....                        | 100,000   | 2-3                                | 20  |
| Cardinal Climber.....                  | 1,000   | 5                                  | 10-20   | Nicotiana .....                      | 200,000   | 3-4                                | 5-10  |
| Carnation .....                        | 15,000  | 4-5                                | 10-15   | Nigella .....                        | 12,000  | 1-2                                | 10-15   |
| Celosia .....                          | 30,000  | 4                                  | 8-10  | Pansy .....                          | 24,000  | 2-3                                | 8-10  |
| Centaurea (Cyanus)....                 | 7,000   | 3                                  | 8-10  | Papaver .....                        | 125,000   | 3-4                                | 6-10  |
| Chinese Wool Flower....                | 30,000  | 4                                  | 8-10  | Penstemon .....                      | 60,000  | 2                                  | 8-15  |
| Chrysanthemum (Single<br>Annual) ..... | 10,000  | 6-7                                | 8-10  | Petunia .....                        | 152,000   | 3-4                                | 8-10  |
| Cineraria .....                        | 100,000   | 3-4                                | 8-10  | Phlox .....                          | 15,000  | 1-3                                | 8-10  |
| Clarkia .....                          | 100,000   | 2-3                                | 10  | Platycodon .....                     | 30,000  | 2-3                                | 12-15   |
| Cobea .....                            | 400   | 2                                  | 15-20   | Portulaca (Double)....               | 300,000   | 3                                  | 8-10  |
| Coleus .....                           | 115,000   | 2                                  | 10-15   | Portulaca (Single)....               | 300,000   | 3                                  | 8-10  |
| Convolvulus (Major)....                | 1,500   | 4-5                                | 5-10  | Polyanthus .....                     | 30,000  | 2                                  | 60  |
| Coreopsis .....                        | 12,000  | 2                                  | 5-10  | Poppy (Oriental)....                 | 150,000   | 5                                  | 15  |
| Cosmos .....                           | 5,500   | 3                                  | 8-10  | Primula (Siensis)....                | 20,000  | 2                                  | 10-15   |
| Cypress Vine.....                      | 2,200   | 4-5                                | 10-20   | Pueraria (Kudzu Vine)...             | 2,500   | 4                                  | 30  |
| Dahlia .....                           | 3,000   | 2-3                                | 10-20   | Pyrethrum (Aureum)....               | 200,000   | 2                                  | 10-12   |
| Daisy, African.....                    | 10,000  | 2                                  | 20  | Ricinus (Zanzibariensis) .           | 50  | 2                                  | 12-15   |
| Daisy (Bellis).....                    | 200,000   | 2-3                                | 8-10  | Rudbeckia (Bicolor<br>Superba) ..... | 90,000  | 2                                  | 8-10  |
| Datura .....                           | 2,000   | 3-4                                | 15-20   | Saponaria (Vaccaria)....             | 6,000   | 2                                  | 10  |
| Delphinium .....                       | 15,000  | 2                                  | 20  | Salpiglossis .....                   | 125,000   | 7-8                                | 5-10  |
| Dianthus .....                         | 28,000  | 5-6                                | 5-10  | Salvia (Scarlet Sage)....            | 10,000  | 2                                  | 5-10  |
| Dianthus Barbatus....                  | 27,000  | 3                                  | 8-10  | Scabiosa .....                       | 5,000   | 2-3                                | 10-15   |
| Digitalis .....                        | 200,000   | 2                                  | 10-15   | Scarlet Flax (See Linum)             |   |                                    |   |
| Dolichos .....                         | 115   | 4                                  | 10-15   | Schizanthus .....                    | 100,000   | 4-5                                | 5-10  |
| Eschscholtzia .....                    | 15,000  | 2                                  | 5-10  | Shasta Daisy .....                   | 25,000  | 1-2                                | 20  |
| Euphorbia (Variegata)...               | 2,500   | 3-4                                | 10-12   | Stocks .....                         | 18,000  | 5-6                                | 3-10  |
| Gaillardia (Pieta)....                 | 15,000  | 2                                  | 10-15   | Stokesia .....                       | 3,500   | 2                                  | 10-15   |
| Gentiana .....                         | 6,000   | 3                                  | 10-20   | Thunbergia .....                     | 1,200   | 2                                  | 10-15   |
| Geum .....                             | 15,000  | 2                                  | 15-60   | Verbena .....                        | 10,000  | 1-2                                | 10-15   |
| Godetia .....                          | 100,000   | 3                                  | 6-10  | Vinca .....                          | 22,000  | 1-2                                | 10-12   |
| Gomphrena .....                        | 5,800   | 2-3                                | 10-15   | Viola .....                          | 25,000  | 1-2                                | 8-10  |
| Gourds (Mixed).....                    | 300   | 5-6                                | 12-15   | Wallflower .....                     | 15,000  | 5                                  | 5-10  |
| Gypsophila (Elegans)....               | 25,000  | 2                                  | 5   | Wild Cucumber.....                   | 125   | 2                                  | 10-20   |
| Gypsophila (Paniculata) .              | 35,000  | 4                                  | 15  | Xeranthemum .....                    | 20,000  | 2                                  | 7-10  |
| Helenium .....                         | 120,000   | 3-4                                | 10-20   | Zinnia .....                         | 4,000   | 6-7                                | 5-10  |
| Heliantheus<br>(Cucumerifolius) .....  | 9,000   | 2-3                                | 5-10  |                                      |   |                                    |   |
| Heliantheus (Double<br>Chrys.) .....   | 700   | 2-3                                | 5-10  |                                      |   |                                    |   |

# Seed World Advertising Produces Results



## Because—

This publication is read by dealers in seeds and allied lines who are **PAID SUBSCRIBERS.**

Seed World maintains paid correspondents in eleven central markets—Washington, Toronto, St. Louis, Boston, San Francisco, Philadelphia, Milwaukee, Minneapolis, New York, Kansas City and Louisville.

More than forty authoritative representatives contribute articles on successful retail merchandising methods. Most of these men travel by auto through all parts of the United States and Canada, making direct contacts with the retail merchants. In this manner Seed World is always in contact with this enormous buying field of the retail seed merchant.

These articles cover every phase of retail merchandising, building the catalog, store interiors, collections, local advertising, etc. All are written by experts.

## ENORMOUS BUYING FIELD

The clientele of the seed dealer today is not only the suburban gardener and truck grower—but the real dirt farmer—the man with a big acreage and big buying power.

Seed World circulates to seed store owners with a potential buying power of **twelve and one-half million people.** In addition to the retail store buyers, the mail order seedsman reach annually another twenty-seven million five hundred thousand buyers through the distribution of their catalogs. Visualize what a buying power **FORTY MILLION BUYERS REPRESENT!**

The annual sales of merchandise sold by the seed trade other than seed amount to one hundred million dollars. In the last few years many items have been introduced and very successfully sold in this trade, thus producing an enormous business and making it one of the most outstanding distributing industries in the country today.

The seed trade can be a very profitable outlet for your product; get in touch with Seed World at once and let them, with their years of experience in this field, advise you on selling it.

# SEED WORLD

325 W. Huron Street

CHICAGO, ILL.

## FOREIGN FLOWER SEEDS

### **AUSTRALIA**

Anderson & Co., Ltd., Seedsmen  
Sydney, N. S. W., Australia  
Fosters, Ltd.  
    Sydney, N. S. W., Australia  
Gill & Searle  
    Melbourne, Australia  
Hackett, Ltd., E. & W.  
    Adelaide, S. A., Australia  
Law Somner Pty., Ltd.  
    Melbourne, Victoria, Australia  
Martin & O'Keefe, Ltd.  
    Sydney, N. S. W., Australia  
Railton, James  
    Melbourne, Victoria, Australia  
Shepherd & Son, Ltd., P. L. C.  
    Sydney, N. S. W., Australia  
Watters & Sons, Ltd.  
    Melbourne, Victoria, Australia  
Yates & Co., Ltd., Arthur  
    Sydney, N. S. W., Australia

### **CANARY ISLANDS**

Wildpret Bros.  
    Port Orotava, Teneriffe, Canary Islands

### **CHINA**

Manshu Nosan Shokai, Inc.  
    Dairen, So. Manchuria, China

### **DENMARK**

L. Daehnfeldt & Theodor Jensen, Ltd.  
Odense, Denmark  
(See Adv. on Page 97)

Ohlsen's Enke, J. E.  
Copenhagen, Denmark  
(See Adv. on Page 69)

### **ENGLAND**

Bunting & Co., G. A.  
    London, W. C. I., England  
Cooper, Taber & Co., Ltd.  
    London, England  
Harrison & Sons  
    Leicester, England  
Hurst & Son  
    London, England  
Kelway & Son (1933), Ltd.  
Langport, England  
(See Adv. on Page 107)  
King & Co., Ltd., E. W.  
    Coggeshall, Essex, England  
Sharpe & Co., Ltd., Chas.  
    Sleaford, England  
Watkins & Simpson, Ltd.  
    London, England

### **FRANCE**

Barbier & Fils, P. A.  
    St. Remy-de-Provence (Bouches du Rhone), France  
Cayeux & Le Clerc  
    Paris, France  
Clause, L.  
    Bretigny-Sur-Orge (S. & O.), France.  
Honore Roumanille & Fils  
    St. Remy-de-Provence (Bouches du Rhone), France  
Huber & Co., Ch.  
    Hyeres-les-Palmiers (Var), France  
Moreau Bros.  
    Brain-Sur-l'Authion (Maine & Loire), France  
Perrin, Louis  
    St. Remy-de-Provence (Bouches du Rhone), France  
Rachet Freres  
    St. Remy-de-Provence (Bouches du Rhone), France  
Rivoire Pere & Fils  
    Lyon (Rhône), France  
Roumanille Lafayette Pere & Fils  
    St. Remy-de-Provence (Bouches du Rhone), France  
Roustan Servan & Cie  
    St. Remy-de-Provence, France  
Simon Louis Freres & Cie  
    Bruyeres-le-Chatel (S. & O.), France  
Tezier Freres  
    Valence-Sur-Rhone (Drome), France  
Vilmorin Andrieux & Co.  
    Paris, France

### **GERMANY**

Benary, Ernst  
Erfurt, Germany  
(See Adv. on Page 107)  
Binnewics, E. (Cyclamen)  
Alfeld, Germany  
Bitterhoffsohn, August  
Berlin, Germany  
Dippe Gebruder, A. G.  
Quedlinburg, Germany  
Fischer, Ferdinand (Cyclamen)  
Wiesbaden-Aukamm, Germany  
Haubner, August  
Eisleben, Germany  
Heinemann, F. C.  
Erfurt, Germany  
Hesse & Sohn, Robt.  
Rieder Quedlinburg, Germany  
Mette, Heinr.

### **Quedlinburg, Germany**

(See Adv. on Page 107)  
Muller, Heinrich  
    Neu Dietendorf, Germany  
Pape & Bergmann  
    Quedlinburg, Germany  
Sachs, David  
    Quedlinburg, Germany  
Teicher, Paul  
    Striegau, Germany  
Weigelt & Co.  
    Erfurt, Germany  
Wrede, H. (Pansy)  
    Lueneburg, Germany  
Zacharias, Paul  
    Ermsleben, Germany

### **HOLLAND**

Rood & Zoon, P.  
    Bovenkarspel, Holland  
Sluis Bros., Ltd.  
    Enkhuizen, Holland  
Sluis & Groot's Zaadteelt & Zaadhadel  
    Enkhuizen, Holland  
Vis Bros.  
    Enkhuizen, Holland

### **HUNGARY**

Hungarian Seed Culture Co., Ltd.  
    Budapest, Hungary  
Kertesz, Ludwig  
    Budapest, Hungary

### **INDIA**

Ghose & Co., G.  
    Darjeeling, India

### **ITALY**

Bulleri, Francesco  
    Scafati, Italy  
Ditta, D'Anna Francesco  
    San Giovanni A Teduccio, Italy  
Herb, M.  
    Naples, Italy  
Mennella, Carmine Faraone  
Torre Del Greco (Near Naples), Italy  
(See Adv. on Page 85)

### **JAPAN**

Nishikata & Son  
    Yokohama, Japan  
Sakata & Co., T.  
    Yokohama, Japan  
(See Adv. on Pages 73 and 131)  
Takii & Co., Ltd.  
    Kyoto, Japan  
Tokyo Konoen, Ltd.  
    Shibuya, Tokyo, Japan  
Yamato Seed & Plant Co., Ltd.  
    Mejiro, Tokyo, Japan

### **SWITZERLAND**

Correvon, H.  
    Chene Bourg, Geneva, Switzerland  
Dammann, F.  
    Lugano, Switzerland  
(See Adv. on Page 87)  
Haubensak Sons, Fr.  
    Basel, Switzerland  
Mauser, Emil  
    Zurich, Switzerland  
Muller & Co., E. S. A.  
    Zurich, Switzerland

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# BULBS, PLANTS AND MISCELLANEOUS SEEDS

## BULBS—AMERICAN DEALERS

- Aggeler & Musser Seed Co.**  
Los Angeles, Calif.  
**Alexander, J. K.**  
E. Bridgewater, Mass.  
**American Bulb Co.**  
Chicago, Ill.  
(See Adv. on Page 111)  
**Brown Bulb Ranch**  
Capitola, Calif.  
**Burpee Co., W. Atlee**  
Philadelphia, Pa.  
(See Adv. on Page 103)  
**Cornell Seed Co.**  
St. Louis, Mo.  
(See Adv. on Page 25)  
Cowee, Arthur  
Berlin, N. Y.  
**Croom & Bro., John F.**  
Magnolia, N. C.  
**Dreer, Henry A.**  
Philadelphia, Pa.  
**Ellis Bulb Gardens, Merton G.**  
Canby, Ore.  
**Fight Floral Co.**  
New York, N. Y.  
**Fussell, J. B.**  
Rose Hill, N. C.  
**Gill Bros. Seed Co. (Dahlia)**  
Portland, Ore.  
**Grootendorst, A. M.**  
Benton Harbor, Mich.  
**Guille, Walter J.**  
New York, N. Y.  
(See Adv. on Page 111)  
**Henderson & Co., Peter**  
New York City, N. Y.  
**Henry & Lee**  
New York, N. Y.  
**Holland-American Seed Co.**  
Grand Rapids, Mich.  
**Hyde Co., H. A.**  
Watsonville, Calif.  
**Ireland, Z. Jay**  
Pleasant Valley, N. Y.  
Irwin, Roman J.  
New York, N. Y.  
**Kunderd, A. E. (Gladiola)**  
Goshen, Ind.  
**Larson, Leonard C.**  
Portland, Ore.  
**Lawler, George**  
Tacoma, Wash.  
**Leonard Seed Co.**  
Chicago, Ill.  
(See Adv. on Third Cover)  
**Main, Arthur B.**  
Santa Cruz, Calif.  
**McHutchison & Co.**  
New York, N. Y.  
(See Adv. on Page 161)  
**Michell Co., Henry F.**  
Philadelphia, Pa.  
**Mount Arbor Nurseries**  
Shenandoah, Iowa  
**Quality Seed & Bulb Co.**  
Chicago, Ill.  
**Rynveld & Sons**  
New York, N. Y.  
**Schwake & Co., Inc., Chas.**  
New York, N. Y.  
**St. Louis Seed Co.**  
St. Louis, Mo.  
**Skidelsky & Co., S. S.**  
New York, N. Y.  
**Stumpf & Walter Co.**  
New York City, N. Y.  
**Van Waveren & Son, Inc., M.**  
New York, N. Y.  
**Vaughan's Seed Store**  
Chicago, Ill.

Vos & Son, P.  
Grand Rapids, Mich.  
Ward & Co., R. M.  
New York, N. Y.

## BULBS—FOREIGN DEALERS

### FRANCE

Lemaire & Julien  
Paris, France

### GERMANY

Berham, Chr.  
Stendal, Germany  
Benary, Ernst  
Erfurt, Germany  
(See Adv. on Page 107)  
Chehler, Carl  
Halberstadt, Germany  
Haage & Schmidt  
Erfurt, Germany  
Heinemann, F. C.  
Erfurt, Germany  
Hesse & Sohn, Rob.  
Rieder am Hacz, Germany  
Kaiser, Ferdinand  
Eisleben, Germany  
Leib, Wilhelm  
Arnstadt, Germany  
Lieban & Co.  
Erfurt, Germany  
Lorenz, Chr.  
Erfurt, Germany  
Manshu Nosan Shokai, Inc.  
Dairen, So. Manchuria, China  
Pabst, Carl  
Erfurt, Germany  
Pape & Bergmann  
Quedlinberg, Germany  
Pfizer, Wilhelm  
Stuttgart, Germany  
Putz, Otto  
Erfurt, Germany  
Reine, Schoo & Co.  
Fornosch-Holstein, Germany  
Roemer, Friedrich  
Quedlinberg, Germany  
Schraeder, C. G.  
Saltwedel, Germany  
Stenger & Rotter  
Erfurt, Germany  
Wehranpfannig, A.  
Quedlinberg, Germany  
Wiegelt & Co.  
Erfurt, Germany

### HOLLAND

Byvoet Bros.  
Overeen, Haarlem, Holland  
De Graaf Bros.  
Noordwyk, Holland  
De Graaf & Sons, H.  
Lisse, Holland  
Eldering & Son, W. J.  
Overeen, Holland  
Grullemans & Sons, J. J.  
Lisse, Holland  
Jonkheer & Sons, C.  
Hillegom, Holland  
Segers Brothers  
Lisse, Holland  
Segers, Gerrit  
Lisse, Holland  
Steelman & Sons, C. J.  
Sassenheim, Holland  
Straathof, L. H.  
Hillegom, Holland  
Tegelaar Bros.  
Lisse, Holland  
Van Der Schoot, R. A.  
Hillegom, Holland  
Van Der Veld, George  
Lisse, Holland  
Van Waveren Stamhois Nurseries  
Hillegom, Holland

**BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued****Bulbs—Continued****JAPAN**

Bunting & Co., Isaac  
Yokohama, Japan

Sakata & Co., T.  
Yokohama, Japan

(See Adv. on Pages 73 and 131)

**SWEDEN**

Holmberg, Algot & Son  
Norrkoping, Sweden

**NURSERY STOCK**

Bohlender Sons, Peter  
Tippecanoe City, Ohio  
Clinton Falls Seed & Nursery Co.  
Owatonna, Minn.  
Cutler & Downing Co.  
Benton Harbor, Mich.  
Elliott, Ltd., Clarence  
Stevenage, Herts, England  
Ernst Nurseries  
Eaton, Ohio  
Forest Nursery Co.  
McMinnville, Tenn.  
Gardens of the Blue Ridge  
Ashford, No. Carolina  
Harmel Peony Co.  
Berlin, Md.  
Harmon Nursery  
Prospect, Ohio  
Hill Nursery, D., The  
Dundee, Ill.  
Jackson & Perkins Co.  
Newark, N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Naperville Nurseries  
Naperville, Ill.  
North-Eastern Forestry Co., The  
Cheshire, Conn.  
Northfield Seed & Nursery Co.  
Northfield, Minn.  
Onarga Nursery Co.  
Onarga, Ill.  
Piedmont Forestry Co.  
Bound Brook, N. J.  
Rice Nurseries, T. W.  
Geneva, N. Y.  
Shenandoah Nurseries  
Shenandoah, Iowa  
Smith Co., W. & T.  
Geneva, N. Y.  
State Nursery & Seed Co.  
Helena, Mont.  
Storrs & Harrison Co.  
Painesville, Ohio  
Washington Nursery Co.  
Toppenish, Wash.  
Weaver Gardens Co., The  
Wichita, Kans.  
Westminster Nurseries, The  
Westminster, Md.  
Wickliffe, Ray (Osage Orange Seed)  
Seneca, Kans.  
Willadean Nurseries, Inc.  
Sparta, Ky.  
Willis Nursery Co., The  
Ottawa, Kan.  
Wilson & Co., Inc., C. E.  
Manchester, Conn.

**CACTI**

Clark, Mrs. Fred  
Van Horn, Texas  
Consolidated Displays, Inc.  
Chicago, Ill.

Desert Plant Co.  
El Paso, Texas  
Schroeder, T. R.  
Chicago, Ill.

**EVERGREENS**

Appalachian Evergreen Co.  
Doeville, Tenn.  
Conwell, Inc., H. Ernest  
Milton, Dela.  
Cumberland Valley Nursery Co., Inc.  
McMinnville, Tenn.  
Jackson & Perkins Co.  
Newark, N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Naperville Nurseries  
Naperville, Ill.  
North-Eastern Forestry Co.  
Cheshire, Conn.  
Rosebank Nursery Co.  
Huntsville, Ala.  
State Nursery & Seed Co.  
Helena, Mont.  
Swedberg Bros. Nurseries  
Battle Lake, Minn.

**FERNS**

Ferndale Nursery  
Askov, Minn.

**FRUIT TREES**

Cumberland Valley Nursery Co., Inc.  
McMinnville, Tenn.  
Jackson & Perkins Co.  
Newark, N. Y.  
May Seed & Nursery Co.  
Shénandoah, Iowa  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Potter Sales Nursery Co.  
McMinnville, Tenn.  
Rosebank Nursery Co.  
Huntsville, Ala.  
Smithville Nursery Co.  
Smithville, Tenn.

**FRUIT—SMALL**

Bauer Plant Co., J. A. (Strawberry)  
Judsonia, Ark.  
Cumberland Valley Nursery Co., Inc.  
McMinnville, Tenn.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Schifferli & Son Nurseries, The F. E.  
Fredonia, N. Y.  
Thomas, W. W. (Strawberry)  
Anna, Ill.

**GRAPE VINES**

Mount Arbor Nurseries  
Shenandoah, Iowa  
Munson Nurseries  
Denison, Texas

**ORNAMENTALS**

Brainard's Nurseries & Greenhouses, Inc.  
Des Moines, Iowa  
Cumberland Valley Nursery Co., Inc.  
McMinnville, Tenn.  
Jackson & Perkins Co.  
Newark, N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Naperville Nurseries  
Naperville, Ill.  
Wilson & Co., C. E.  
Manchester, Conn.

**BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued****PERENNIALS**

Cottage Gardens, The (Peonies)  
Lansing, Mich.  
Locust Valley Dahlia Farms  
Cold Springs Harbor, L. I., N. Y.  
Jackson & Perkins Co.  
Newark, N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Naperville Nurseries  
Naperville, Ill.  
Wilson & Co., C. E.  
Manchester, Conn.

**ROSE BUSHES**

Howard Rose Co., Inc.  
Hemet, Calif.  
Jackson & Perkins Co.  
Newark, N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Wilson Co., C. E.  
Manchester, Conn.

**WATER PLANTS**

Aquatic Plant Nursery  
New Orleans, La.  
**Auburndale Goldfish Co.**  
Chicago, Ill.  
(See Adv. on Page 150)  
Beldt's Aquarium  
St. Louis, Mo.  
Lakeview Ponds, The  
Mt. Airy, Cincinnati, Ohio  
Loveland Goldfish Farms  
Loveland, Ohio  
**Pacific Goldfish Farm**  
Westminster, Calif.  
(See Adv. on Page 149)  
Terrell's Aquatic Farm  
Oshkosh, Wis.  
Woodford Water Gardens  
Van Nuys, Calif.

**ONION SET GROWERS**

Algers, K. W.  
Crystal City, Texas  
Bartedes Seed Co.  
Denver, Colo.  
Bruce & Co., Ltd., John A.  
Hamilton, Ont., Canada  
Chester Co., The H. H.  
Chicago, Ill.  
Condon Bros., Seedsmen  
Rockford, Ill.  
**Corneli Seed Co.**  
St. Louis, Mo.  
(See Adv. on Page 25)  
Dimitracopoulos, M., and P. Xenakis  
Salonica, Greece  
Dutch Valley Growers, Inc.  
So. Holland, Ill.  
**Grand Junction Seed Co.**  
Grand Junction, Colo.  
(See Adv. on Page 71)  
Gridley Maxon Co.  
Chicago, Ill.  
Hayes Labish Farms  
Salem, Oregon  
Hollenbach, Peter  
Chicago, Ill.  
Illinois Onion Set Growers Exchange  
South Holland, Ill.  
Joannides, D. N.  
Salonica, Greece  
Kaufmann's Onion Set Warehouse  
South Holland, Ill.  
**Landreth Seed Co., D.**  
Bristol, Pa.  
(See Adv. on Page 3)  
**Leonard Seed Co.**  
Chicago, Ill.  
(See Adv. on Third Cover)  
**Meeters, Inc.**  
Lansing, Ill.  
(See Adv. on Page 111)

**Northrup, King & Co.****Minneapolis, Minn.**

(See Adv. on Page 5)

Pals Bros.

So. Holland, Ill.

Rau, Lawrence

Chicago, Ill.

Saltiel, Fils D'Isac S.

Salonica, Greece

Schilder Bros.

Chillicothe, Ohio

**Steele, Briggs Seed Co.**

Toronto, Canada

(See Adv. on Page 35)

Van Baren Bros.

So. Holland, Ill.

Van Deursen, J. S.

Chicago, Ill.

Vaughan's Seed Store

Chicago, Ill.

Waterman, Chas.

So. Holland, Ill.

**Woodruff & Sons, F. H.**

Milford, Conn.

(See Adv. on Front Cover)

**PLANTS—FLOWER**

Alexander, J. K.

East Bridgewater, Mass.

**American Bulb Co.**

Chicago, Ill.

(See Adv. on Page 111)

Brazil Dahlia Farm

Indianapolis, Ind.

Bushy Flower Gardens

Bushy, Va.

Capital Fuel &amp; Feed Co.

Phoenix, Ariz.

Chautauqua Flower Fields

Bemis Point, N. Y.

Hand Seed Co., Inc., A. M.

Portland, Ore.

Hardy Plant &amp; Pansy Farm

Baraboo, Wis.

Hyde Co., H. A.

Watsonville, Calif.

Ireland, Z. Jay

Pleasant Valley, N. Y.

**Lagomarsino & Sons, F.**

Sacramento, Calif.

(See Adv. on Page 34)

Lind Plant Farms

Cotulla, Texas

McGregor Bros. Co.

Springfield, Ohio

**McHutchison & Co.**

New York, N. Y.

(See Adv. on Page 161)

Merritt, John W.

Farmingdale, L. I., N. Y.

Mount Arbor Nurseries

Shenandoah, Iowa

Myers &amp; Scott

Van Buren, Ark.

Onarga Nursery Co.

Onarga, Ill.

Rosebank Nursery Co.

Huntsville, Ala.

Schaumberg, Henry

Hammonton, N. J.

Schmeiske, Wm. F.

Kirkwood, N. Y.

Skidelsky &amp; Co., S. S.

New York City, N. Y.

Smith Plant Farm, E. C.

Milano, Texas

State Nursery &amp; Seed Co.

Helena, Mont.

Texas Seed &amp; Plant Co.

Dallas, Texas

**VEGETABLE PLANTS**

Albany Plant &amp; Seed Co.

Albany, Ga.

Alger, K. W. (Grower)

Crystal City, Texas

Alvy, Jack

Van Buren, Ark.

Blackshear Plant Co.

Blackshear, Ga.



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KANSAS

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Bullock's Plant Farm  
White Springs, Fla.  
Carlisle Plant Farms  
Valdosta, Ga.  
Carolina Seed & Plant Co.  
Florence, S. C.  
Clifton, J. A.  
Russellville, Ark.  
Councill Seed Co.  
Franklin, Va.  
Crescent Farms,  
Sumner, Ga.  
**Fulwood, P. D.**  
Tifton, Ga.  
(See Adv. on Page 23)  
**Geraty & Co., Wm. C.**  
Yonges Island, S. C.  
**Grand Junction Seed Co.**  
Grand Junction, Colo.  
(See Adv. on Page 71)  
**Grossmann & Son, W.**  
Petersburg, Va.  
**Hammell Seed Farms, Geo. Q.**  
Cedarville, N. J.  
**Harvey Seed Co.**  
Montgomery, Ala.  
**Hoopes Co., J. E. (Plants and Asparagus Roots)**  
Muscatine, Iowa  
Irrigated Plant Farms  
Thorndale, Tex.  
**Jefferson Farms, The**  
Albany, Ga.  
Kille, Willard B.  
Swedesboro, N. J.  
**Lagomarsino & Sons, F.**  
Sacramento, Calif.  
(See Adv. on Page 34)  
**Ledden & Son, Orol**  
Sewell, N. J.  
**Lehmann's Seed Store**  
Baton Rouge, La.  
**Leonard, I. & J. L.**  
Iona, N. J.  
**Lind Plant Farm**  
Cotulla, Texas  
**May & Son, Inc., W. H.**  
Alexandria, Va.  
**Myers Seed & Plant Co.**  
Tifton, Ga.  
**Old Dominion Plant Co.**  
Franklin, Va.  
**Omega Plant Co.**  
Omega, Ga.  
**Parker Farms**  
Tifton, Ga.  
**Parks, Walter**  
Darien, Ga.  
**Piedmont Plant Co.**  
Albany, Ga.  
**Quality Seed House**  
Chickasha, Okla.  
**Rochelle & Sons, F. W.**  
Chester, N. J.  
**Rochelle, Paul F.**  
Morristown, N. J.  
**Ross Bros. Seed Co.**  
Wichita, Kan.  
**Shreve & Son, J. W.**  
Andalusia, Ala.  
**Service Plant Co.**  
Omega, Ga.  
**Sims Plant Co.**  
Pembroke, Ga.  
**Steiner Branch Seed Co.**  
Grovetown, Ga.  
**Stevenson, G. W.**  
Fordyce, Ark.  
**Tidewater Plant Co.**  
Franklin, Va.  
**Todd, Geo. M.**  
Greensboro, N. C.  
**Valdosta Plant Co.**  
Valdosta, Ga.  
**Van Antwerp Seed Co.**  
Mobile, Ala.  
**Vickery Plant Co.**  
Ennis, Tex.

Wards Gardens  
Mobile, Ala.  
Warrick, Ray W.  
Crozet, Va.  
Williams, W. W.  
Quitman, Ga.  
Wood & Son, T. W.  
Richmond, Va.  
Wyatt & Sons Co., Job P.  
Raleigh, N. C.

**SEEDS—MISCELLANEOUS****CANARY SEED**

**Blamberg Bros., Inc.**  
Baltimore, Md.  
(See Adv. on Page 23)  
**Cornell Seed Co.**  
St. Louis, Mo.  
(See Adv. on Page 25)  
**Crawford, Keen & Co.**  
New York City, N. Y.  
**De Groot, Van Nes, & Co.**  
Rotterdam, Holland  
**Dickinson Co., Albert**  
Chicago, Ill.  
(See Adv. on Page 132)  
**Duryea Seed Co., Inc.**  
New York, N. Y.  
(See Adv. on Page 63)  
**German, Gale T.**  
New York, N. Y.  
**Handelsverband G. M. b. H.**  
Danzig  
(See Adv. on Page 69)  
**Herbst Bros.**  
New York City, N. Y.  
(See Adv. on Pages 73 and 131)  
**Hinton & Co., Inc.**  
New York, N. Y.  
**Johnson, Inc., J. Oliver**  
Chicago, Ill.  
**Justrite Co., The**  
Milwaukee, Wis.  
**Kellogg-Kelly Seed Co.**  
St. Joseph, Mo.  
(See Adv. on Page 61)  
**Magnesia Products Co.**  
Milwaukee, Wis.  
**Mangelsdorf & Bro., Ed. F.**  
St. Louis, Mo.  
(See Adv. on Page 13)  
**McCullough Seed Co., The J. Chas.**  
Cincinnati, Ohio  
(See Adv. on Page 65)  
**Philadelphia Seed Co.**  
Philadelphia, Pa.  
(See Adv. on Page 26)  
**Radwaner Seed Co., I. L.**  
New York, N. Y.  
(See Adv. on Page 63)  
**Radway-McCullough Seeds, Inc.**  
New York, N. Y.  
(See Adv. on Page 63)  
**Scarlett & Co., Wm. G.**  
Baltimore, Md.  
(See Adv. on Page 40)  
**St. Louis Seed Co.**  
St. Louis, Mo.  
**Von Damm, F. A.**  
Brooklyn, N. Y.

**LAWN GRASS SEED**

**Aggeler & Musser Seed Co.**  
Los Angeles, Calif.  
**American Seed Co.**  
Detroit, Mich.  
**Arizona Feed & Seed Association**  
Phoenix, Ariz.  
**Bagnall, Howard E.**  
Kansas City, Mo.  
**Barnard Co., W. W.**  
Chicago, Ill.

**BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued****Lawn Grass Seed—Continued**

**Chanderlin Seed Co.**  
New York, N. Y.

**Corneli Seed Co.**  
**St. Louis, Mo.**  
(See Adv. on Page 25)

**Crossland, W. H.**  
**Milwaukee, Wis.**  
(See Adv. on Page 57)

**Dickinson Co., Albert**  
**Chicago, Ill.**  
(See Adv. on Page 132)

**Doughten Seed Co.**  
Jersey City, N. J.

**Duryea Seed Co., Inc.**  
**New York, N. Y.**  
(See Adv. on Page 63)

**Engbretson Seed Co.**  
Astoria Ore.

**Fertilawn Co.**  
**Hamilton, N. Y.**  
(See Adv. on Page 31)

**Hunkel Co., G. H.**  
Milwaukee, Wis.

**Hyper-Humus Co.**  
**Newton, N. J.**  
(See Adv. on Page 123)

**Johnson, Inc., J. Oliver**  
Chicago, Ill.

**Kellogg-Kelly Seed Co.**  
**St. Joseph, Mo.**  
(See Adv. on Page 61)

**Kellogg Seed Co.**  
Milwaukee, Wis.

**Klein, G. A.**  
Los Angeles, Calif.

**Landreth Seed Co., D.**  
**Bristol, Pa.**  
(See Adv. on Page 3)

**Leonard Seed Co.**  
**Chicago, Ill.**  
(See Adv. on Third Cover)

**Louisville Seed Co.**  
**Louisville, Ky.**  
(See Adv. on Page 61)

**Mangelsdorf & Co., F. A.**  
Atchison, Kans.

**Mangelsdorf & Bro., Ed. F.**  
**St. Louis, Mo.**  
(See Adv. on Page 13)

**McCullough Seed Co., The J. Chas.**  
**Cincinnati, Ohio**  
(See Adv. on Page 65)

**McCullough's Sons Co., The J. M.**  
**Cincinnati, Ohio**  
(See Adv. on Page 63)

**McHutchison & Co.**  
**New York, N. Y.**  
(See Adv. on Page 161)

**Mount Arbor Nurseries**  
Shenandoah, Iowa

**Northwest Seed Co., The**  
Seattle, Wash.

**O. & M. Seed Co., The**  
**Green Springs, Ohio**  
(See Adv. on Page 115)

**Philadelphia Seed Co.**  
**Philadelphia, Pa.**  
(See Adv. on Page 26)

**Radwaner Seed Co., I. L.**  
**New York, N. Y.**  
(See Adv. on Page 63)

**Radway-McCullough Seeds, Inc.**  
**New York, N. Y.**  
(See Adv. on Page 63)

**Scarlett & Co., Wm. G.**  
Baltimore, Md.  
(See Adv. on Page 40)

**Scott Co., I. W.**  
Pittsburgh, Pa.

**Scott & Sons Co., O. M.**  
**Marysville, Ohio**  
(See Adv. on Page 31)

**Sevin-Vincent Seed Co.**  
San Francisco, Calif.

**Sun-Field Seed Service**  
Chicago, Ill.

**Williamson, Garfield**  
**New York City, N. Y.**  
(See Adv. on Page 92)

**Woodruff & Sons, F. H.**

**Milford, Conn.**

(See Adv. on Front Cover)

**POP CORN**

American Popcorn Co.

Sioux City, Iowa

Bagnall, Howard E.

Kansas City, Mo.

Clark & Sons, C. S.

Wakeman, Ohio

(See Adv. on Page 25)

**Corneli Seed Co.**

**St. Louis, Mo.**

(See Adv. on Page 25)

**Craver-Dickinson Seed Co.**

**Buffalo, N. Y.**

(See Adv. on Page 13)

**Dickinson Co., Albert**

**Chicago, Ill.**

(See Adv. on Page 132)

Haddon, J. W.

Hickory, Miss.

Indiana Pop Corn Co.

Muncie, Ind.

Mangelsdorf & Co., F. A.

Atchison, Kans.

Tuttle Popcorn Co., R. M.

Spencer, Iowa

**POTATO SEED**

**Interstate Seed & Grain Co.**

**Fargo, N. D.**

(See Adv. on Page 41)

**SEED POTATOES**

Aggeler & Musser Seed Co.

Los Angeles, Calif.

Barnes Co., O. J.

Grand Forks, N. D.

Cochrane Co., T. H.

Portage, Wis.

Davenport Seed Co.

**Davenport, Iowa**

(See Adv. on Page 39)

**Farmer Seed & Nursery Co.**

**Faribault, Minn.**

(See Adv. on Page 115)

**Far North Potato Ass'n**

**Park River, N. D.**

Hand Seed Co., Inc., A. M.

Portland, Ore.

Hickox-Rumsey Co.

Batavia, N. Y.

Hopkins & Co., H. A.

Minneapolis, Minn.

Hyde Co., H. A.

Watsonville, Calif.

**Interstate Seed & Grain Co.**

**Fargo, N. D.**

(See Adv. on Page 41)

May & Co., Inc., W. H.

Alexandria, Va.

Miller & Co., Albert

Chicago, Ill.

Myers & Scott

Van Buren, Ark.

**Philadelphia Seed Co.**

**Philadelphia, Pa.**

(See Adv. on Page 26)

Pinner & Co.

Suffolk, Va.

Portland Seed Co.

Portland, Ore.

Rohrer & Bro., P. L.

Smoketown, Pa.

Scarlett & Co., Wm. G.

**Baltimore, Md.**

(See Adv. on Page 40)

Simmons Seed Co.

Moorhead, Minn.

Sun-Field Seed Service

Chicago, Ill.

Valker-Christensen Co.

Minot, N. Dak.

Van Antwerp Seed Co.

Mobile, Ala.

**Washburn-Wilson Seed Co.**

**Moscow, Idaho**

(See Adv. on Page 31)

Woodruff & Sons, S. D.

Orange, Conn.

## BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued

## SEED CORN

- Aggeler & Musser Seed Co.  
Los Angeles, Calif.
- Associated Seed Growers, Inc.**  
**New Haven, Conn.**  
(See Adv. on Page 99)
- Athens Seed Co.**  
**Athens, Ga.**  
(See Adv. on Page 57)
- Atlantic Seed Co., Inc.**  
**Philadelphia, Pa.**
- Beridon, Jr., E. J.**  
**Hamburg, La.**  
(See Adv. on Page 23)
- Bernhard Seed Co., A.**  
**Parkston, S. D.**
- Bonahoom Seed Co., N.**  
**Hastings, Nebr.**
- Bowman Seed Co., The**  
**Concordia, Kan.**
- Clark & Sons, C. S.**  
**Wakeman, Ohio**  
(See Adv. on Page 25)
- Cochrane Co., T. H.**  
**Portage, Wis.**
- Coe Seed & Grain Co., D. O.**  
**Topeka, Kan.**
- Comstock, Ferre & Co.**  
**Wethersfield, Conn.**  
(See Adv. on Page 91)
- Corneli Seed Co.**  
**St. Louis, Mo.**  
(See Adv. on Page 25)
- Council Bluffs Seed Co.**  
**Council Bluffs, Iowa**
- Coy & Son, Chauncey P.**  
**Waterloo, Neb.**
- Crabbs, Reynolds, Taylor Co.**  
**Crawfordsville, Ind.**
- Crookham Co.**  
**Caldwell, Ida.**
- Dakota Improved Seed Co.**  
**Mitchell, S. D.**  
(See Adv. on Page 57)
- Dassel Seed Co., Inc.**  
**Dassel, Minn.**
- Davenport Seed Co.**  
**Davenport, Iowa**  
(See Adv. on Page 39)
- Davis Seed Co., E. C.**  
**St. Peter, Minn.**
- Davis, Zack**  
**Delaware, Ohio**
- Dickinson Co., Albert**  
**Chicago, Ill.**  
(See Adv. on Page 132)
- Eagle Mill & Elevator Co. (Seed Corn)**  
**Higginsville, Mo.**
- Farmer Seed & Nursery Co.**  
**Faribault, Minn.**  
(See Adv. on Page 115)
- Gilmore, E. L. C.**  
**Ashland, Neb.**
- Goldberg Seed & Feed Co.**  
**Fargo, N. D.**
- Griswold Seed & Nursery Co.**  
**Lincoln, Nebr.**  
(See Adv. on Page 65)
- Grossman & Son, W.**  
**Petersburg, Va.**
- Healy Seed Co.**  
**Belle Center, Ohio**
- Interstate Seed & Grain Co.**  
**Fargo, N. D.**  
(See Adv. on Page 41)
- Iroquois Seed Service**  
**Chicago, Ill.**  
(See Adv. on Page 115)
- Iroquois Seed Service**  
**Ridgewood, N. J.**  
(See Adv. on Page 115)
- Jacques, Wm. H.**  
**Prescott, Wis.**  
(See Adv. on Page 29)
- Johnson, Inc., J. Oliver**  
**Chicago, Ill.**
- Keller & Sons, Geo.**  
**Quincy, Ill.**
- Kelly Seed Company**  
**Peoria, Ill.**
- Kelly Western Co.**  
**Salt Lake City, Utah**
- King & Sons, H. C.**  
**Battle Creek, Mich.**  
(See Adv. on Page 27)
- Klingensmith Seed Co., E. J.**  
**New Augusta, Ind.**
- Landreth Seed Co., D.**  
**Bristol, Pa.**  
(See Adv. on Page 3)
- Mangelsdorf & Bro., Ed. F.**  
**St. Louis, Mo.**  
(See Adv. on Page 13)
- Minneapolis Seed Co.**  
**Minneapolis, Minn.**  
(See Adv. on Page 61)
- Morris Grain & Seed Co.**  
**Morris, Ill.**
- Newday Seeds, Inc.**  
**Fargo, N. D.**  
(See Adv. on Page 25)
- Nishna Valley Seed Co.**  
**Shenandoah, Iowa**
- Northrup, King & Co.**  
**Minneapolis, Minn.**  
(See Adv. on Page 5)
- O. & M. Seed Co.**  
**Green Springs, Ohio**  
(See Adv. on Page 115)
- Page Seed Co.**  
**Greene, N. Y.**  
(See Adv. on Page 57)
- Pedrick & Sons, Geo. R.**  
**Pedricktown, N. J.**
- Peppard Seed Co.**  
**Kansas City, Mo.**
- Rice Seed Co., Jerome B.**  
**Cambridge, N. Y.**  
(See Adv. on Page 45)
- Robinson Seed Co., J. C.**  
**Waterloo, Neb.**  
(See Adv. on Page 99)
- Rogers Bros. Seed Co.**  
**Chicago, Ill.**  
(See Adv. on Rear Cover)
- Russell-Heckle Seed Co.**  
**Memphis, Tenn.**
- Searlett & Co., Wm. G.**  
**Baltimore, Md.**  
(See Adv. on Page 40)
- Schell, Inc., Walter S.**  
**Harrisburg, Pa.**
- Simmons Seed Co.**  
**Moorhead, Minn.**
- Sioux City Seed Co.**  
**Sioux City, Iowa**  
(See Adv. on Pages 73 and 95)
- Skromme Seed Co.**  
**Roland, Iowa**
- Springfield Seed Co.**  
**Springfield, Mo.**
- Standard Seed Co.**  
**Des Moines, Iowa**
- Steele, Briggs Seed Co., Ltd.**  
**Toronto, Canada**  
(See Adv. on Page 35)
- Sun-Field Seed Service**  
**Chicago, Ill.**
- Vance Bros.**  
**Tillsonburg, Ontario, Canada**
- Vermillion Seed Co.**  
**Vermillion, S. D.**
- Western Seed & Irrigation Co.**  
**Fremont, Neb.**
- Wood & Sons, T. W.**  
**Richmond, Va.**
- Woodruff & Sons, F. H.**  
**Milford, Conn.**  
(See Adv. on Front Cover)
- Woodruff & Sons, S. D.**  
**Orange, Conn.**
- Zanger, W. O. (Sweet Corn)**  
**North Loup, Nebr.**

## TOBACCO SEED

- Snapp & Sons, J. P.**  
**Limestone, Tenn.**  
(See Adv. on Page 93)

# SWEET CORN

*Improved Strains—Minnesota Grown*

No better quality anywhere. Our strains suitable for the most critical trade. Grown where Stewart's disease is unknown.

We offer, subject to previous sale, for prompt shipment or contract—

New "Min-Hybrids"—(Minn. Exp. Sta. Hybrids)

Early Golden Bantam—8 row

Improved Golden Bantam—10-14 row

Early Sunshine

Extra Early Golden Gem

Oregon Evergreen

*We Contract to Grow Your Requirements*

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**FARMER SEED & NURSERY CO.**

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SEED

ENSILAGE CORN  
GARDEN SEED  
GRASS SEED  
SWEET CORN  
FIELD CORN  
SEED OATS

•  
Write for prices and  
information



**THE O & M SEED CO.  
GREEN SPRINGS OHIO.**

## Iroquois Seed Service

Warren Dunham Foster

Room 200

37 South La Salle St., CHICAGO

Telephone Franklin 8622

RIDGEWOOD NEW JERSEY  
CONTRACT GROWERS

Standard Farm Seeds

Illinois and Iowa Grown

1934 Seed Corn for Immediate  
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Plant Cutmer (P. O. Milford),  
Iroquois County, Illinois

All Processing—Selecting, Drying,  
Grading

## A GREAT SELLER TROWBRIDGE GRAFTING-WAX

Now put up in NEW modern,  
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Trowbridge Grafting Wax is the best known Grafting Wax on the market. It was formulated about 86 years ago and consists of high grade Gum Rosin, Beeswax and Tallow. We exercise extreme care in blending these ingredients in order that Trowbridge Grafting Wax may be possessed of the most even consistency and elasticity of any. It is used and endorsed by the best authorities in horticulture the country over.

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Ready Demand • Quick Turnover  
Real Profits

**WRITE FOR PRICES**

Manufacturers

**WALTER E. CLARK & SON**  
Milford, Conn.

**BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued****TREE SEEDS**

Aggeler & Musser Seed Co.  
Los Angeles, Calif.  
**Albany Seed Co.**  
Albany, Ore.  
(See Adv. on Page 41)  
Ansaloni, Arturo  
Bologna, Italy  
Colorado Seed Co.  
Denver, Colo.  
Ellis, F. M.  
Griffin, Ga.  
Grunwald, A.  
Wiener-Neustadt, Austria  
**Herbst Brothers**  
(Agts. for T. Sakata & Co., Yokohama,  
Japan)  
**New York City**  
(See Adv. on Pages 73 and 131)  
Katzenstein & Co., Otto  
Atlanta, Ga.  
**Loewith, Inc., Julius**  
New York City, N. Y.  
(See Adv. on Page 63)  
Manshu Nosan Shokai, Inc.  
Dairen, So. Manchuria, China  
Mitchell Bros. Nursery  
Forest Hill, La.  
Murphy, A.  
Woy Woy, N. S. W., Australia  
North Eastern Forestry Co.  
Cheshire, Conn.  
Rosebank Nursery Co.  
Huntsville, Ala.  
Schon, Ltd., Jacob S.  
Bruenn, Czechoslovakia  
Tokyo Konoen, Ltd.  
Shibuya, Tokyo, Japan  
Yokohama Nursery Co., Ltd.,  
New York, N. Y.

**VEGETABLE ROOTS**

**Corneli Seed Co.**  
St. Louis, Mo.  
(See Adv. on Page 25)  
**Hyde Co., H. A.**  
Watsonville, Calif.  
**Lagomarsino & Sons, F.**  
Sacramento, Calif.  
(See Adv. on Page 34)  
**Ledden, Orol**  
Sewell, N. J.  
Pedrick & Sons, Geo. R.  
Pedricktown, N. J.

**WILD RICE**

Fleming, Ernest  
Bena, Minn.  
MacGregor-Dennerly Co.  
Aitkin, Minn.  
Minnesota Wild Rice Co.  
La Porte, Minn.  
Terrell's Aquatic Farm  
Oshkosh, Wis.

**BROKERS**

Appel Commission Co., C. H.  
St. Louis, Mo.  
**Crawford, Keen & Co.**  
New York, N. Y.  
Dreyfus, Paul  
Paris, France  
Dunn, Arthur G.  
New York City, N. Y.  
Gauvreau, Paul F.  
Quebec City, Canada  
German, Gale T.  
New York, N. Y.  
**Herbst Bros.**  
New York, N. Y.  
(See Adv. on Pages 73 and 131)  
**Lecourt, Rene**  
Paris, France  
**Loechner & Co., Inc.**  
New York, N. Y.  
(See Adv. on Page 83)

**Loewith, Inc., Julius**  
New York City, N. Y.  
(See Adv. on Page 63)  
**McCarty Co., The J. A.**  
Evansville, Ind.  
**McHutchison & Co.**  
New York, N. Y.  
(See Adv. on Page 161)  
**Mason, R. E.**  
San Francisco, Calif.  
**Meier, J. G.**  
Salina, Kans.  
(See Adv. on Page 111)  
**Muller & Slaughter**  
Laredo, Tex.  
Pineus, J. W.  
New York, N. Y.  
**Radwaner Seed Co., I. L.**  
New York, N. Y.  
(See Adv. on Page 63)  
**Scott, T. Maurice**  
St. Louis, Mo.  
(See Adv. on Page 61)  
Southern Brokerage Co. (Seeds, Fertilizers, Onion Sets)  
Memphis, Tenn.  
**Sperco & Son, C. J.**  
New York, N. Y.

**FORWARDING AGENTS**

Furness, Withy & Co., Ltd.  
New York City, N. Y.  
**McHutchison & Co.**  
New York, N. Y.  
(See Adv. on Page 161)  
**Meadows & Co., Thos.**  
New York City, N. Y.  
**Pitt & Scott**  
New York, N. Y.  
Ravaud, A.  
Paris, France

**SEED COMMISSION FIRMS**

American Seed Co.  
Detroit, Mich.  
Appel Commission Co., C. H.  
St. Louis, Mo.  
Flower Co., S. W.  
Toledo, Ohio  
**Loewith, Inc., Julius**  
New York City, N. Y.  
(See Adv. on Page 63)  
Picker & Beardsley Comm. Co.  
St. Louis, Mo.  
**Pitt & Scott, Inc.**  
New York City, N. Y.  
**Radwaner Seed Co., I. L.**  
New York City, N. Y.  
(See Adv. on Page 63)  
**Scott, T. Maurice**  
St. Louis, Mo.  
(See Adv. on Page 61)  
Sevin-Vincent Seed Co.  
San Francisco, Calif.  
Southworth & Co.  
Toledo, Ohio

**SEED STORAGE AND DISTRIBUTION**

Blue Line Storage Co.  
Des Moines, Iowa  
Crooks Terminal Warehouse  
Chicago, Ill.  
Currier-Lee Warehouse Co.  
Chicago, Ill.  
Binyon-O'Keefe Fireproof Storage Co.  
Ft. Worth, Texas  
Bush Terminal Co.  
New York City, N. Y.  
General Storage Co.  
Cleveland, Ohio  
Sevin-Vincent Seed Co.  
San Francisco, Calif.

## APPROXIMATE QUANTITY TO SOW PER ACRE

| Kind of Seed          | Per Acre               |   |
|-----------------------|------------------------|---|
| Alfalfa .....         | 15 to 20 pounds        | Emmer or Speltz.... 80 to 100 pounds        |
| Barley .....          | 100 to 120 pounds      | Flax ..... 30 to 35 pounds                  |
| Beans—Soy .....       | 30 to 35 pounds        | Hemp ..... 40 to 50 pounds                  |
| Beans—Table Bush.     | 45 to 50 pounds        | Millet ..... 35 to 45 lbs., broadcast       |
| Beans—Velvet .....    | 50 to 65 pounds        | 10 to 15 lbs.—drilled                       |
| Beets—Sugar .....     | 5 to 6 pounds          | Oats ..... 100 pounds                       |
| Buckwheat .....       | 75 pounds, broadcast   | Peanuts ..... 30 to 35 pounds               |
|                       | 20 to 30 lbs., drilled | Peas, Canada ..... 75 to 80 pounds          |
| Clover, Alsike .....  | 10 to 12 pounds        | Peas, Garden ..... 60 to 120 pounds         |
| Clover, Burr .....    | 15 to 20 pounds        | Potatoes, Irish ..... 850 to 1,000 pounds   |
| Clover, Crimson ..... | 12 to 20 pounds        | Potatoes, Sweet..... Approx. 10,000 plants  |
| Clover, Red .....     | 12 to 15 pounds        | Rape, Dwarf Essex.. 12 to 15 lbs. broadcast |
| Clover, Mammoth...    | 12 to 15 pounds        | 4 to 8 lbs., drilled                        |
| Clover, Sweet .....   | 10 to 15 pounds        | Rye ..... 70 to 80 pounds.                  |
| Clover, White .....   | 8 to 10 pounds         | Sorghum ..... 30 to 35 pounds.              |
| Corn, Field .....     | 10 to 15 pounds        | Sunflower ..... 4 to 6 lbs. (drilled)       |
| Corn, Sweet .....     | 10 to 15 pounds        | Vetch, Common ..... 60 to 75 pounds         |
| Cotton .....          | 20 to 30 lbs., drilled | Vetch, Hairy ..... 25 to 30 pounds          |
|                       |                        | Wheat ..... 100 to 120 pounds               |

QUANTITIES OF VEGETABLE  
SEED TO SOW A ROW

| Kind of Seed                 | Quantity to Sow<br>a Single Row<br>of 100 Yards |
|------------------------------|---|
| Asparagus .....              | 8 oz.   |
| Beans, Bush.....             | 6 lb.   |
| Beans, Lima.....             | 3 lb.   |
| Beans, Pole.....             | 3 lb.   |
| Beet .....                   | 5 oz.   |
| Broccoli .....               | 3 oz.   |
| Brussels Sprouts.....        | 3 oz.   |
| Cabbage .....                | 2 oz.   |
| Carrot .....                 | 3 oz.   |
| Cauliflower .....            | 3 oz.   |
| Celery .....                 | 3 oz.   |
| Collards .....               | 3 oz.   |
| Corn .....                   | 1 lb.   |
| Cress .....                  | 4 oz.   |
| Cucumber .....               | 4 oz.   |
| Dandelion .....              | 3 oz.   |
| Egg Plant.....               | 1 oz.   |
| Endive .....                 | 2 oz.   |
| Kohl-rabi .....              | 3 oz.   |
| Leek .....                   | 3 oz.   |
| Lettuce .....                | 2 oz.   |
| Melon, Musk.....             | 2 oz.   |
| Melon, Water.....            | 2 oz.   |
| Mustard .....                | 4 oz.   |
| Okra .....                   | 3 oz.   |
| Onion (for large bulbs)..... | 2 oz.   |
| Onion (for sets).....        | 8 oz.   |
| Parsley .....                | 2 oz.   |
| Parsnip .....                | 2 oz.   |
| Peas .....                   | 6 lb.   |
| Pepper .....                 | 1 oz.   |
| Pumpkin .....                | 2 oz.   |
| Radish .....                 | 6 oz.   |
| Rhubarb .....                | 3 oz.   |
| Salsify .....                | 3 oz.   |
| Spinach .....                | 6 oz.   |
| Squash .....                 | 3 oz.   |
| Tomato .....                 | 1 oz.   |
| Turnip .....                 | 3 oz.   |

The quantity of vegetable seed required to produce a given number of plants:

| Variety                 | Oz. | Approx.<br>No. of<br>Plants |
|-------------------------|-----|-----------------------------|
| Artichoke .....         | 1   | 500                         |
| Asparagus (Seed) .....  | 1   | 800                         |
| Beans, Bush .....       | 1   | 150                         |
| Beans, Pole .....       | 1   | 125                         |
| Beets .....             | 1   | 1,800                       |
| Broccoli .....          | 1   | 2,000                       |
| Brussel's Sprouts ..... | 1   | 2,000                       |
| Cabbage .....           | 1   | 2,000                       |
| Carrots .....           | 1   | 3,000                       |
| Cauliflower .....       | 1   | 2,000                       |
| Celery .....            | 1   | 5,000                       |
| Collards .....          | 1   | 4,000                       |
| Corn .....              | 1   | 175                         |
| Corn Salad .....        | 1   | 1,600                       |
| Cucumber .....          | 1   | 1,000                       |
| Egg Plant .....         | 1   | 2,000                       |
| Endive .....            | 1   | 1,250                       |
| Kale .....              | 1   | 3,000                       |
| Kohl Rabi .....         | 1   | 3,000                       |
| Leek .....              | 1   | 1,600                       |
| Lettuce .....           | 1   | 8,000                       |
| Muskmelon .....         | 1   | 1,600                       |
| Mustard .....           | 1   | 2,500                       |
| Okra .....              | 1   | 600                         |
| Onion .....             | 1   | 1,250                       |
| Parsley .....           | 1   | 1,400                       |
| Parsnip .....           | 1   | 750                         |
| Peas .....              | 1   | 125                         |
| Pepper .....            | 1   | 1,500                       |
| Pumpkin .....           | 1   | 125                         |
| Radish .....            | 1   | 1,000                       |
| Rhubarb .....           | 1   | 700                         |
| Salsify .....           | 1   | 500                         |
| Spinach .....           | 1   | 1,100                       |
| Squash .....            | 1   | 500                         |
| Tomato .....            | 1   | 2,000                       |
| Turnip .....            | 1   | 4,000                       |
| Watermelon .....        | 1   | 500                         |

# IT PAYS TO SPRAY

**D**AMAGE DONE by insects and fungus diseases amounts to many millions of dollars annually. In order to combat them, manufacturers of insecticides and fungicides have scientifically prepared many sprays and dusts which have been found effective in the control and eradication of these pests and diseases.

These products are sold by the manufacturers under various trade names. Retail seedsmen have found it most profitable to have them for sale. Each year the demand for insecticides and fungicides is increasing.

In order to make it easier for the users of this GUIDE to ascertain what insecticide or fungicide to use for the numerous pests that infest growing crops, the following table has been arranged giving the names of some of the products which have been found effective.

|   |  |   |
|---|--|---|
| Acme White Lead & Color Works,<br>Detroit, Mich.  | "G & O Dormant Miscible Oil<br>Spray"          | McLaughlin Gormley King Co.,<br>Minneapolis, Minn.                |
| "Acme All Round Spray"                            | "G & O Nicotine Dust"                          | "Ever Green"  |
| "Acme Aphid Spray"                                | "G & O Plant Spray"                            | "Selocide"  |
| "Acme Arsenate of Lead"                           | "G & O 142"                                    | Mechling Bros. Chemical Co.,<br>Camden, N. J.                     |
| "Acme Bean Beetle Dust"                           | "G & O 180"                                    | "Hydroxide"   |
| "Acme Bordeaux Mixture"                           | "GO-4"   | "Mechling's Scale Oil"  |
| "Acme Calcium Arsenate"                           | Grasselli Chemical Co.,<br>Cleveland, Ohio     | "Pyrote"  |
| "Acme Dry Lime Sulphur"                           | "Dutox"  | S. B. Penick & Co.,<br>New York, N. Y.                            |
| "Acme Garden Guard"                               | "Floragard"                                    | "Deridust"  |
| "Acme London Purple"                              | "Grasselli Arsenate of Lead"                   | "Derispray"   |
| "Acme Paris Green"                                | "Kleenup Oil"                                  | "Foliafume"   |
| "Acme Spray Soap"                                 | "Loro"   | Morris B. Reade, Inc.,<br>Belleville, N. J.                       |
| Chipman Chemical Company,<br>Bound Brook, N. J.   | "Manganar Rose Dust"                           | "Agri-Pax"  |
| "Calgreen"  | "Nu Rexform"                                   | Rohm & Haas Co.,<br>Philadelphia, Pa.                             |
| "Cubor"   | "Sulforon"                                     | "Cuproicide"  |
| "Cubor Dust"                                      | Hammond Paint & Chemical Co.,<br>Beacon, N. Y. | "Lethane 420"   |
| General Chemical Co.,<br>New York, N. Y.          | "Do-All Green Dust"                            | Tobacco By-Products & Chemical<br>Corporation,<br>Louisville, Ky. |
| "O. B. Arsenate of Lead"                          | "Grape & Rose Dust"                            | "Blackleaf 40"  |
| "O. B. Bordeaux Dust"                             | "Nicotine Soap"                                | "Nicolume Liquid"   |
| "O. B. Calcium Arsenate"                          | "Slug Shot"                                    | Andrew Wilson, Inc.,<br>Springfield, N. J.                        |
| "O. B. Dritomic Sulphur"                          | "Thrip Juice"                                  | "Awinc"   |
| "O. B. Lime Sulphur"                              | Hitox Products Corp.,<br>New York, N. Y.       | "Fung-O"  |
| "O. B. Nicotine Sulphate"                         | "Hitox"  | "O. K. Plant Spray"   |
| "O. B. X-13"                                      | The Kalo Company,<br>Quincy, Ill.              | "Scale-O"   |
| James Good, Inc.,<br>Philadelphia, Pa.            | "Kalo"   | "Tri-Tox-Cide"  |
| "Keystone Fish Oil Spray Soaps<br>No. 1, 2 and 3" | "Kalo Spray"                                   |   |
| Goulard & Olena, Inc.,<br>New York, N. Y.         | "Kaloil"                                       |   |
| "G & O Bordeaux Mixture"                          | "Kalite"                                       |   |
| "G & O Copper Lime Dust"                          | "Killal"                                       |   |
| Apple and<br>Pear                                 | McCormick & Co.,<br>Baltimore, Md.             |   |
|   | "Red Arrow"                                    |   |

## Spraying Table

|                        |                     | What to Use   |
|------------------------|---------------------|---|
| Apple and<br>Pear      | Codling Moth        | Acme Arsenate of Lead; Agri-Pax; Dutox; GO-4; Grasselli Arsenate of Lead; Kalo; Nu Rexform; Slug Shot   |
|                        | San Jose Scale      | Acme Dry Lime Sulphur; G & O Dormant Miscible Oil; Keystone Fish Oil Soap No. 1; Kleenup Oil; Lethane 420; Mechling's Scale Oil; O. B. Lime Sulphur; Scale-O.   |
|                        | Seab                | Acme Dry Lime Sulphur; Cuprocide; G & O Dormant Mis. Oil; Kaloil.   |
|                        | Wooly Aphis         | Acme Aphis Spray; Acme Dry Lime Sulphur; Acme Spray Soap; Agri-Pax; Awinc; Black Leaf 40; Cubor; Do-All Green Dust; Foliafume; G & O Plant Spray; Hitox; Kalo; Lethane 420; Loro; O. B. Nicotine Sulphate; Pyrote; Thrip Juice.                           |
| Aster                  | Asparagus<br>Beetle | Acme Garden Guard; Acme London Purple; Acme Paris Green; Agri-Pax; Awinc; Cubor; Deridust; Derispray; Dutox; GO-4; Hitox; Kalite; Killal; O. B. Arsenate of Lead; Pyrote; Red Arrow.  |
|                        | Aphis               | Acme Aphis Spray; Acme All Round Spray; Agri-Pax; Awinc; Black Leaf 40; Do-All Green Dust; Ever Green; Foliafume; GO-4; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.               |
| Beans                  | Aster Beetle        | Acme All Round Spray; Acme Aphis Spray; Acme Garden Guard; Agri-Pax; Awinc; Cubor; Dutox; Ever Green; Foliafume; GO-4; Hitox; Kalite; Killal; O. B. Arsenate of Lead; Pyrote; Red Arrow; Slug Shot.   |
|                        | Aphis               | Acme Aphis Spray; Acme Spray Soap; Agri-Pax; Awinc; Black Leaf 40; Cubor; Deridust; Derispray; Do-All Green Dust; Ever Green; GO-4; G & O Plant Spray; Hitox; Kaloil; Killal; Lethane 420; Loro; O. B. Nicotine Sulphate; Pyrote; Red Arrow; Thrip Juice. |
| Mexican Bean<br>Beetle |                     | Acme Bean Beetle Dust; Agri-Pax; Awinc; Cubor; Deridust; Derispray; Dutox; Ever Green; G & O 1 & 2; Hitox; Kalite; Killal; O. B. Bordeaux Dust; Pyrote; Red Arrow; Slug Shot.   |

# HUDSON

## SPRAYERS—GARDEN TOOLS

## POULTRY SUPPLIES

*are sold the world over!*

They are improved and developed to the highest standard of quality. Those who sell the three HUDSON LINES are assured of getting up-to-the-minute merchandise, tested and retested under practical conditions.

The completeness of these three lines reduces your buying problem to a single source of supply and your immediate request for information and special seed dealer proposition will prove of great value to you.

**H. D. HUDSON MANUFACTURING CO.**  
589 E. ILLINOIS ST.

NEW YORK CITY  
OMAHA

MINNEAPOLIS  
KANSAS CITY

CHICAGO, ILL.  
PHILADELPHIA  
SAN FRANCISCO

## INCREASE YOUR SALES WITH PETS & SUPPLIES



LET SEED WORLD PUT YOU  
IN TOUCH WITH THE PROPER  
ONES TO SUPPLY YOU WITH  
QUALITY ITEMS THAT SELL.



FOR THIS SERVICE  
JUST WRITE TO THE



**PET DEPARTMENT  
SEED WORLD**

325 W. Huron St., » Chicago

**Spraying Table (Continued)**

|   |                     | What to Use   |
|---|---------------------|---|
|   |                     | Disease or Insect   |
| Cabbage<br>Cauliflower<br>Brussels<br>Sprouts |                     | Acme Aphid Spray; Acme Garden Guard; Agri-Pax; Awine; Cubor; Cubor Dust; Deridust; Derispray; Dutox; Ever Green; GO-4; G & O Copper Lime Dust; Hitox; Kalo Spray; Killal; O. B. Calcium Arsenate; Pyrote; Slug Shot.  |
| Carnation                                     | Thrips              | Acme All Round Spray; Acme Aphid Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Ever Green; Foliafume; GO-4; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.   |
| Cherry  | Aphis               | Acme All Round Spray; Acme Aphid Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Killal; Lethane 420; Loro; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.   |
| Chrysanthemum                                 | Rot                 | Acme Dry Lime Sulphur; G & O Dormant Misc. Oil; O. B. Dritomic Sulphate; Sulforon.  |
| Cucumber                                      | Cureulio            | Acme Arsenate of Lead; GO-4; Kalo Spray; O. B. Arsenate of Lead.  |
| Dahlia  | Aphis               | Acme All Round Spray; Acme Aphid Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Nicofume Liquid; O. B. X-13; O. K. Plant Spray; Pyrote; Red Arrow; Thrip Juice. |
| Currant                                       | Striped Beetle      | Acme Garden Guard; Agri-Pax; Awine; Cubor; Deridust; Derispray; Dutox; Ever Green, GO-4; Hitox; Kalite; Killal; O. B. Bordeaux Dust; Pyrote; Red Arrow; Slug Shot.  |
| Ferns   | Aphis               | Acme All Round Spray; Acme Aphid Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Deridust; Derispray; Do-All Green Dust; Ever Green; GO-4; Hitox; Kaloil; Killal; Lethane 420; Loro; O. B. Nicotine Sulphate; Pyrote; Red Arrow; Thrip Juice.   |
| Gooseberry                                    | San Jose Scale      | Acme Dry Lime Sulphur; G & O Dormant Misc. Oil; Keystone Fish Oil Soap No. 1; Lethane 420; O. B. Lime Sulphur Solution; Scale-O.  |
| Nasturtium                                    | Worm                | Acme Aphid Spray; Acme Garden Guard; Agri-Pax; Cubor; Deridust; Ever Green; GO-4; Hitox; Kalite; Killal; O. K. Plant Spray; Pyrote; Slug Shot.  |
| Plum  | Aphis               | Acme All Round Spray; Acme Aphid Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; GO-4; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.  |
| Potato  | Tarnished Plant Bug | Agri-Pax; Awine; Cubor; Ever Green, Foliafume; GO-4; Kaloil; Killal; O. B. X-13; Red Arrow; Slug Shot.  |
| Roses   | Thrips              | Acme All Round Spray; Acme Aphid Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Cubor Dust; Ever Green; Foliafume; Hitox; G & O Plant Spray; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; O. B. X-13; Red Arrow; Thrip Juice.  |
| Plants  | Mealy Bug           | Lethane 420.  |
| Plants  | White Fly           | Agri-Pax; Awine; Cubor; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Lethane 420; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.   |
| Plants  | Aphis               | Agri-Pax; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; Hitox; G & O Plant Spray; Kalcil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; Nicofume Liquid; O. B. X-13; O. K. Plant Spray; Pyrote; Red Arrow; Thrip Juice.  |
| Plants  | Mildew              | Acme Aphid Spray; Acme Bordeaux Mixture; Foliafume; Fung-O; G & O Bordeaux Mixture; Grape Rose Dust.  |
| Plants  | Worm                | Acme Aphid Spray; Acme Garden Guard; Agri-Pax; Awine; Cubor; Ever Green; Foliafume; GO-4; Hitox; Kalite; Killal; Pyrote; Slug Shot.   |
| Plants  | Aphis               | Acme All Round Spray; Acme Aphid Spray; Agri-Pax; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; O. B. X-13; O. K. Plant Spray; Pyrote; Red Arrow; Thrip Juice.                   |
| Plants  | Rot                 | Acme Dry Lime Sulphur; O. B. Dritomic Sulphur; Sulforon.  |
| Plants  | Cureulio            | Acme Arsenate of Lead; O. B. Arsenate of Lead.  |
| Plants  | Early Blight        | Acme Bordeaux Mixture; G & O Bordeaux Mixture; Hydroxide.   |
| Plants  | Late Blight         | Acme Bordeaux Mixture; G & O Bordeaux Mixture; Hydroxide.   |
| Plants  | Potato Bugs         | Acme Calcium Arsenate; Acme London Purple; Acme Paris Green; Agri-Pax; Calgreen; Deridust; Derispray; Dutox; G & O 180; Hitox; Hydroxide; Kalite; Kalospray; O. B. Calcium Arsenate; Pyrote; Slug Shot.   |
| Plants  | Red Spider          | Agri-Pax; Awine; Cubor; Floragard; Foliafume; G & O Plant Spray; Hitox; Kaloil; Killal; Lethane 420; Manganar Rose Dust; O. B. Dritomic Sulphur; Pyrote; Red Arrow; Selocide; Thrip Juice.  |
| Plants  | Aphis               | Acme All Round Spray; Acme Aphid Spray; Agri-Pax; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; O. B. X-13; O. K. Plant Spray; Pyrote; Red Arrow; Rose Dust; Thrip Juice.        |
| Plants  | Leaf Roller         | Agri-Pax; Awine; Cubor; Foliafume; GO-4; Hitox; Kalospray; Kleenup Oil; Red Arrow; Thrip Juice.   |
| Plants  | Beetles             | Acme All Round Spray; Acme Aphid Spray; Acme Garden Guard; Agri-Pax; Awine; Cubor; Dutox; Foliafume; GO-4; Kalospray; Killal; O. B. Arsenate of Lead; Pyrote; Slug Shot.  |

Spraying Table (*Continued*)

|                          | Disease or Insect | What to Use  |
|--------------------------|-------------------|--|
| Sweet Pea                | Aphis             | Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; Nicofume Liquid; O. B. X-13; O. K. Plant Spray; Pyrote; Red Arrow; Thrip Juice. |
|                          | Anthraenose       | Acme Bordeaux Mixture; Fung-O; G & O Bordeaux Mixture; Killal; Thrip Juice.  |
| Tomato                   | Leaf Spot         | Acme Bordeaux Mixture; Fung-O; G & O Bordeaux Mixture.   |
|                          | Tomato Worm       | Kalospray; Killal.   |
|                          | Anthraenose       | Acme Bordeaux Mixture; Fung-O; G & O Bordeaux Mixture; Thrip Juice.  |
| Watermelon and Muskmelon | Aphis             | Acme Aphis Spray; Acme Garden Guard; Agri-Pax; Awine; Black Leaf 40; Cubor; Deridust; Derispray; Do-All Green Dust; Ever Green; G & O Nicotine Dust; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Loro; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.                                  |
|                          | Beetles           | Acme Garden Guard; Agri-Pax; Awine; Cubor; Deridust; Derispray; Dutox; Ever Green; G & O 180 G & O Copper Lime Dust; Hitox; Kalite; Kalospray; Killal; O. B. Bordeaux Dust; Pyrote; Slug Shot.   |

**MECHLING'S****Insecticide Specialties****PYROTE**

Reg. U. S. Pat. Off.

**outstanding non-poisonous  
Pyrethrum-Rotenone Spray.  
Powerful**

*Here are a few more of our specialties  
which you can sell profitably:*

Bacterial Sulphur (we are sole manufacturers.)  
Hydroxcide, combined Bordeaux-Arsenical.  
Mexican Bean Beetle Destroyer.  
Rotenone-Sulphur Dusting Mixture.  
Scale Oil for Fruits and Ornamental Trees.  
Japtox—the new control for Japanese Beetles.

*We invite inquiries, which will have careful attention.*

**MECHLING**  
**BROS. CHEMICAL CO.**

CAMDEN, N.J.

Est. 1869

**HIGH POWERED  
AND SAFE**

**WE** combine more Pyrethrum and Derris extracts—with a "no-burn" spreader—to better control

**RED SPIDER, MEALY BUG,  
THrips, HOPPERS, MIDGE,  
APHIS, and other insects.**

**Non-poisonous**

**Through your dealer \$12.00 a gallon**

**S. B. PENICK & COMPANY**  
132 Nassau St.  
NEW YORK

**Foliafume**  
PLANT SPRAY

**USE THIS GUIDE!**

- To locate sources of seed supplies (page 56).
- To locate sources of merchandise supplies (page 122).
- For information on seed prices (pages 26, 28, 30, 32, 35 and 92).
- For tariff information (page 38).
- For information on seed verification service (page 42).
- For foreign seed import information (pages 36 and 37).
- For trade marks and slogans (pages 50, 51, 52, 53 and 54).
- For latest spraying information (pages 118, 120 and 121).
- For other seed and plant information.

## SIDE LINE MERCHANDISE FERTILIZERS AND SPREADERS

### FERTILIZERS

**Adco Co.**  
Carlisle, Pa.  
**American Agricultural Chem. Co.**  
New York, N. Y.  
**American Bulb Co.**  
Chicago, Ill.  
(See Adv. on Page 111)  
**American Limestone Co.**  
Knoxville, Tenn.  
**Armour Fertilizer Wks.**  
Atlanta, Ga.  
**Atkins & Durbrow**  
New York, N. Y.  
(See Adv. on Page 129)  
**Atlanta Chemical Co.**  
Atlanta, Ga.  
Balfour, Guthrie & Co.  
San Francisco, Cal.  
**Barrett Co., The**  
New York City, N. Y.  
**Baugh & Sons Co.**  
Baltimore, Md.  
**Bon Arbor Chemical Co.**  
Paterson, N. J.  
**Bramley & Son**  
Cleveland, Ohio  
**Carus Chemical Co.**  
La Salle, Ill.  
**Consumers Import Co.**  
New York, N. Y.  
**Darling & Co.**  
Chicago, Ill.  
**Federal Chemical Co.**  
Columbia, Tenn.  
**Fertilawn Co.**  
Hamilton, N. Y.  
(See Adv. on Page 31)  
**Flower City Plant Food Co., Inc.**  
Pittsford, N. Y.  
**Fujiya Fertilizer & Seed Co.**  
Moneta, Calif.  
**Garden Supplies (1929), Ltd.**  
Liverpool, England  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)  
**Grasselli Chemical Co., The**  
Cleveland, Ohio  
(See Adv. on Second Cover)  
**Heil Company**  
Milwaukee, Wis.  
**Hyper-Humus Co.**  
Philadelphia, Pa.  
(See Adv. on Page 123)  
**International Agricultural Corp.**  
New York, N. Y.  
**Natural Guano Co.**  
Aurora, Ill.  
(See Adv. below)  
**Ober & Sons Co., G.**  
Baltimore, Md.  
**Pacific Manure & Fertilizer Co.**  
San Francisco, Calif.  
**Plantabbs Corp.**  
Baltimore, Md.  
**Premier Poultry Manure Co.**  
Chicago, Ill.

### Pulverized Manure Co.

#### Chicago, Ill.

(See Adv. on Page 123)

**Royster Guano Co., F. S.**

#### Norfolk, Va.

**Ruhm Phosphate & Chemical Co.**

#### Mt. Pleasant, Tenn.

**Sewerage Commission**

#### Milwaukee, Wis.

**Smith Agricultural Chemical Co.**

#### Columbus, Ohio

(See Adv. on Page 123)

**Stadler Products Co.**

#### Cleveland, Ohio

**Stimuplant Laboratories, Inc.**

#### Long Island City, N. Y.

(See Adv. on Page 135)

**Swift & Co.**

#### Chicago, Ill.

**Synthetic Nitrogen Products Corp.**

#### New York City, N. Y.

**Tennessee Corp.**

#### New York, N. Y.

**Virginia-Carolina Chemical Corp.**

#### Richmond, Va.

**Williamson, Inc., Garfield**

#### New York, N. Y.

(See Adv. on Page 92)

**Wilson, Inc., Andrew**

#### Springfield, N. J.

(See Adv. on Page 145)

**Wilson & Co.**

#### Chicago, Ill.

**York Chemical Works**

#### York, Pa.

### FERTILIZER PLACERS

**Stauffer Machine Works**

#### Honey Brook, Pa.

### FERTILIZER SPRAYERS

**Alliance Mfg. Co.**

#### Alliance, Ohio

**Electric Sprayit Co.**

#### South Bend, Ind.

**Gatchet, Inc., F. L.**

#### Seattle, Wash.

**Vex Sales Corp.**

#### Chicago, Ill.

### FERTILIZER SPREADERS

**Allen & Co., Inc., S. L.**

#### Philadelphia, Pa.

**Baier Bros. Mfg. Co.**

#### Cissna Park, Ill.

**Campbell-Hausfeld Co., The**

#### Harrison, Ohio

(See Adv. on Page 147)

**Cyclone Seeder Co., The**

#### Urbana, Ind.

**Ellis-Keystone Agricultural Works**

#### Pottstown, Pa.

(See Adv. on Page 125)

**Emerson-Brantingham Implement Co.**

#### Rockford, Ill.

**Hoeft & Co.**

#### North Chicago, Ill.

(See Adv. on Page 155)

**Hyper-Humus Co.**

#### Philadelphia, Pa.

(See Adv. on Page 123)



## LEADING

## PLANT FOODS

### Sheep's Head Pulverized Sheep Manure

A concentrated organic plant food, sterilized of weed seeds, for use where quick, active results are desired. Packaged 5 lbs., 10, 25, 50, 100 pounds to the bag.



### Sheep's Head Sterilized Cattle Manure

For plants requiring a loose, cool soil reclaimer; especially desirable for flowers, such as roses, dahlias, tulips, house plants. Sterilized of weed seeds. Organic. Odorless. Packaged 100 pounds to the bag.

These two products are all the plant foods you need to build yourself a thriving seed business—in store or catalog. Send us your requirements and we will furnish copy, layout and cuts for catalog or newspaper use. Ask for our dealer proposition.

**THE NATURAL GUANO COMPANY**  
816 River Street

Established 1903

Aurora, Illinois

Merchandise and Seedsmen's Supplies Index—Pages 4 and 6



## Nature's Soil Builder

### Improves Your Customer's Soil

Dealers everywhere agree that HYPER-HUMUS is a profitable item. Write for our proposition to dealers.

We will be glad to send you a sample of HYPER-HUMUS and a complete set of bulletins for its use . . . and tell you how you can make it one of the most profitable items in your store sales.

The information and bulletins involve no obligation.

Address the:

### HYPER-HUMUS COMPANY

Morris Building  
Philadelphia Pennsylvania



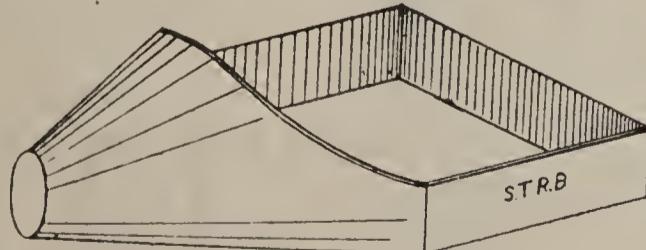
## Sell Natural Plant Foods

Wizard Manures are pure, highly concentrated and absolutely weedless. Attractively packed in paper lined bags in many sizes. These quality products have served the trade for 27 years. A free sales service brings in orders and makes Wizard easy to sell.

*Write for Prices*

**EXCHANGE BLDG.  
UNION STOCK YARDS  
CHICAGO, ILLINOIS**

## WIZARD SHEEP AND COW MANURES



## SEED AND GRAIN SAMPLE PANS

For containing grain or seed after sampling. Advantageous in making analyses and for display. Seamless.

## SACCO

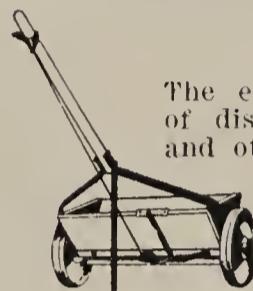
The popular general purpose fertilizer; for lawns, flowers, vegetables, shrubs and trees. Contains a complete plant food diet. Easy to stock, easy to sell, easy to use. The choice of thousands of professional and amateur growers. Convenient packages, 1 lb. to 100 lbs. Liberal discount.



## WE DO

A special fertilizer for lawns only. Feeds grass; fights weeds. Simple to apply, economical to use. Highly recommended by those in charge of parks, golf greens and fine lawns everywhere. A consistent repeat seller. Convenient packages, 10 lbs. to 100 lbs. Liberal trade discount.

## SACCO Fertilizer and Seed SPREADERS



The easiest and most satisfactory way of distributing grass seed, plant foods and other similar materials. Well made and easy to operate. Adjustable feed for controlling rate of application. Two sizes, 18" and 30". List prices, \$3.50 and \$14.50.

*Write today for descriptions and prices.*

**The Smith Agricultural Chemical Company**  
620 North Champion Ave. Columbus, Ohio

Wellsville steel—dark blue and non-glaring.

No. 31—12x16x2 in.—3 qts. wheat capacity. Price each, \$1.50; half dozen, \$8.50.

No. 32—8½x12x1½ in.—1½ qts. wheat capacity. Price each, \$1.25; half dozen, \$7.00.

No. 33—Same as No. 32, Aluminum, \$1.50.

## SEED TRADE REPORTING BUREAU

325 West Huron Street  
CHICAGO, ILL.

## FERTILIZERS AND SPREADERS—Concluded

**Fertilizer Spreaders—Continued**

New Beeman Tractor Co., The  
Minneapolis, Minn.  
Root Mfg. Co.  
Cleveland, Ohio  
**Salem Tool Co.**  
**Salem, Ohio**  
(See Adv. on Page 125)  
Schuh Bros. Co.  
Indianapolis, Ind.  
**Smith Agri. Chem. Co.**  
**Columbus, Ohio**  
(See Adv. on Page 123)  
**Thompson & Sons, O. E.**  
**Ypsilanti, Mich.**  
(See Adv. on Page 139)

**Wilson, Inc., Andrew****Springfield, N. J.**

(See Adv. on Page 145)

**HUMUS**

Florida Humus Co.  
Zellwood, Fla.  
**Hyper-Humus Co.**  
**Philadelphia, Pa.**  
(See Adv. on Page 123)  
**Natural Humus Co.**  
Philadelphia, Pa.  
**Wilson, Inc., Andrew**  
**Springfield, N. J.**  
(See Adv. on Page 145)

**GARDEN AND FIELD IMPLEMENTS AND SUPPLIES****CELERY BLEACHERS**

Ball-Biddle Co.  
Riverton, N. J.  
**Disbrow Mfg. Co.**  
**Newark, N. J.**  
(See Adv. on Page 174)

**CULTIVATORS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
American Fork & Hoe Co.  
Cleveland, Ohio  
Bacon Mfg. Co.  
Pontiac, Mich.  
Brinly Hardy Co.  
Louisville, Ky.  
Brown Mfg. Co.  
Zanesville, Ohio  
Buffum Tool Co.  
Louisiana, Mo.  
Case Co., J. I.  
Racine, Wis.  
**Ellis-Keystone Agricultural Works**  
**Pottstown, Pa.**  
(See Adv. on Page 125)  
Emerson-Brantingham Implement Co.  
Rockford, Ill.  
Empire Plow Co.  
Cleveland, Ohio  
**Gardex, Inc.**  
**Michigan City, Ind.**  
(See Adv. on Page 125)  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Gilson Co., J. E.  
Port Washington, Wis.  
Gravely Motor Plow & Cultivator Co.  
Dunbar, W. Va.  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
Hayes Pump & Planter Co.  
Galva, Ill.  
**Hudson Mfg. Co., H. D.**  
**Chicago, Ill.**  
(See Adv. on Page 119)  
New Beeman Tractor Co., The  
Minneapolis, Minn.  
Norcross & Sons, C. S.  
Bushnell, Ill.  
Ohio Cultivator Co.  
Bellevue, Ohio  
Pioneer Mfg. Co.  
West Allis, Milwaukee, Wis.  
Progressive Machinery Co.  
Minneapolis, Minn.  
Schaible Mfg. Co.  
Elyria, Ohio  
Scott Co., I. W.  
Pittsburgh, Pa.  
Utilitor Co., The  
Dayton, Ohio  
Wonder Mfg. Co.  
Fort Worth, Texas

**DIBBLES**

Johnson, Inc., Wm.  
Newark, N. J.  
**Union Fork & Hoe Co.**  
**Columbus, Ohio**  
(See Adv. on Page 137)

**DRILLS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
American Fork & Hoe Co.  
Cleveland, Ohio  
Bacon Mfg. Co.  
Pontiac, Mich.  
Benthall Machine Co.  
Suffolk, Va.  
Brinly Hardy Co.  
Louisville, Ky.  
Crown Mfg. Co.  
Phelps, N. Y.  
**Ellis-Keystone Agricultural Works**  
**Pottstown, Pa.**  
(See Adv. on Page 125)  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Hayes Pump & Planter Co.  
Galva, Ill.  
**Hudson Mfg. Co., H. D.**  
**Chicago, Ill.**  
(See Adv. on Page 119)  
New Beeman Tractor Co., The  
Minneapolis, Minn.  
Progressive Machinery Co.  
Minneapolis, Minn.

**FANNING MILLS**

Ferrell & Co., A. T.  
Saginaw, Mich.  
**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
(See Adv. on Page 167)  
Owens Co., J. L.  
Minneapolis, Minn.  
Sidney Grain Machinery Co.  
Sidney, Ohio

**GARDEN LINE REELS**

Johnson, Inc., Wm.  
Newark, N. J.

**GARDEN STICKS**

**Root Co., A. I.**  
**Medina, Ohio**  
(See Adv. on Page 161)

**GARDEN TRACTORS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Gilson-Bolens Mfg. Co.  
Port Washington, Wis.  
Gravely Motor Plow & Cultivator Co.  
Dunbar, W. Va.  
Leroy Plow Co.  
Leroy, N. Y.  
Monta Mower Sales Co.  
Grand Rapids, Mich.

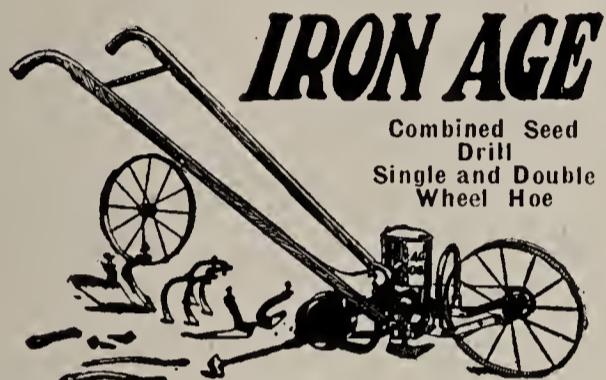
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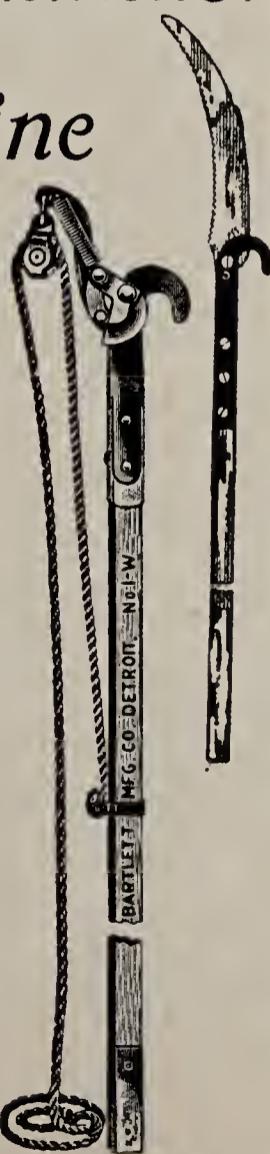
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NEW  
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DIFFERENT  
in principle  
•  
EXTRAORDINARY  
in results  
•



Hoeing drudgery in garden and field is becoming a thing of the past with these new GARDEX Tools. Leaving behind all those hidebound traditions of a horse and buggy age, GARDEX engineers departed from the conventional shapes and built the fast and easy working GARDEX Tools.

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MICHIGAN CITY, INDIANA

**GARDEN AND FIELD IMPLEMENTS AND SUPPLIES—Continued****Garden Tractors—Continued**

New Beeman Tractor Co., The  
Minneapolis, Minn.  
Pioneer Mfg. Co.  
West Allis, Milwaukee, Wis.  
Shaw Mfg. Co.  
Galesburg, Kans.  
Standard Engine Co.  
Minneapolis, Minn.  
Utilitor Co., The  
Dayton, Ohio

**GRAFTING WAX**

Clark & Son, Walter E.  
Milford, Conn.  
(See Adv. on Page 115)

Leonard & Son, A. M.  
Piqua, Ohio  
Pugsley & Morrison  
Yuba City, Calif.

**GRINDERS—HAND**

Arcade Mfg. Co.  
Freeport, Ill.  
Brinly Hardy Co.  
Louisville, Ky.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)

Letz Mfg. Co.  
Crown Point, Ind.  
Pratt Mfg. Co., Wm. E.  
Joliet, Ill.

**HARROWS**

Henderson & Co., Peter  
New York, N. Y.

**HOES**

American Fork & Hoe Company  
Cleveland, Ohio  
C-K-R Co.  
Cleveland, Ohio  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)

Geyer Mfg. Co.  
Rock Falls, Ill.  
Gilson Co., J. E.  
Port Washington, Wis.  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
Hooper Co., Geo.  
Memphis, Tenn.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)

Leonard & Son, A. M.  
Piqua, Ohio  
Piqua Handle Mfg. Co.  
Piqua, Ohio  
Reichard Mfg. Co., F. H.  
Bangor, Pa.  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

**HORTICULTURAL TOOLS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Alliance Mfg. Co., The  
Alliance, Ohio  
American Fork & Hoe Co.  
Cleveland, Ohio  
Bartlett Mfg. Co.  
Detroit, Mich.  
(See Adv. on Page 125)

Clyde Cutlery Co., The  
Clyde, Ohio  
C-K-R Co.  
Cleveland, Ohio  
Disston & Sons  
Philadelphia, Pa.  
Hardie Mfg. Co.  
Hudson, Mich.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
Johnson, Inc., Wm.  
Newark, N. J.  
Leonard & Son, A. M.  
Piqua, Ohio

New Beeman Tractor Co., The  
Minneapolis, Minn.  
Peck, Stow & Wilcox Co.  
Southington, Conn.  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

**KNIVES (ASPARAGUS)**

Johnson, Inc., Wm.  
Newark, N. J.

**PLANT MARKERS**

Ideal Mfg. Co.  
Des Moines, Iowa  
S-W Supply Co.  
Girard, Kansas  
(See Adv. on Page 139)  
Yoho & Hooker  
Youngstown, Ohio

**PLANT PROTECTORS**

Ball-Biddle Co.  
Riverton, N. J.  
Calkins Machine Co.  
Spokane, Wash.  
Germain Seed & Plant Co.  
Los Angeles, Calif.  
(See Adv. on Page 161)  
Harris Mfg. Co., A. W.  
Sleepy Eye, Minn.  
Ideal Mfg. Co.  
Des Moines, Iowa  
Plant Protector Co.  
Rochester, N. Y.

**PLANT SETTERS**

Acmeline Mfg. Co.  
Traverse City, Mich.  
Nagley Transplanter Co.  
Memphis, N. Y.

**PLANT SUPPORTS**

Ball-Biddle Co.  
Riverton, N. J.  
Erickson Co., Inc., C. E.  
Des Moines, Iowa  
Garden Supplies (1929) Ltd.  
Liverpool, England.  
Harris Mfg. Co., A. W. (Bands)  
Sleepy Eye, Minn.  
Henry & Lee  
New York, N. Y.  
Homecraft Specialty Mfg. Co.  
Mattoon, Ill.  
Ideal Mfg. Co.  
Des Moines, Iowa  
Igoe Bros.  
Brooklyn, N. Y.  
McHutchison & Co.  
New York, N. Y.  
(See Adv. on Page 161)  
Michigan Wire Goods Co.  
Niles, Mich.  
(See Adv. on Page 139)  
Reichard Mfg. Co., F. H.  
Bangor, Pa.  
Star Expansion Bolt Co. (Hooks)  
New York, N. Y.  
S-W Supply Co. (Stakes)  
Girard, Kans.  
(See Adv. on Page 139)  
Thieman Harvester Co.  
Albert City, Iowa  
Unadilla Silo Co., Inc.  
Unadilla, N. Y.  
Vaughan's Seed Store  
Chicago, Ill.  
Woodcraft Co., The  
Dalton, N. Y.

**PLANTERS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Brinly Hardy Co.  
Louisville, Ky.  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
New Beeman Tractor Co., The  
Minneapolis, Minn.  
S. & H. Set Onion Planter Co.  
Pleasant Valley, Iowa

**GARDEN AND FIELD IMPLEMENTS AND SUPPLIES—Continued****PRUNING IMPLEMENTS**

Alliance Mfg. Co., The  
Alliance, Ohio  
Bartlett Mfg. Co.  
Detroit, Mich.  
(See Adv. on Page 125)  
C-K-R Co.  
Cleveland, Ohio  
Clark & Son, Walter E.  
Milford, Conn.  
(See Adv. on Page 115)  
Clyde Cutlery Co., The  
Clyde, Ohio  
Disston & Sons, Inc., Henry  
Philadelphia, Pa.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Johnson, Inc., Wm.  
Newark, N. J.  
J. W. S. Trading Co.  
New York, N. Y.  
Leonard & Son, A. M.  
Piqua, Ohio  
Nagley Transplanter Co.  
Memphis, N. Y.  
Northwest Fence & Wire Works  
Portland, Ore.  
Peck, Stow & Wilcox Co.  
Southington, Conn.  
Rhodes Mfg. Co.  
Grand Rapids, Mich.  
Smith & Son, Inc., Seymour  
Oakville, Conn.  
Village Blacksmith Folks, The  
Watertown, Wis.  
Wiss & Sons, J.  
Newark, N. J.

**RAKES**

Akron-Selle Co.  
Akron, Ohio  
C-K-R Co.  
Cleveland, Ohio  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)  
Franklin Equipment Co.  
Monticello, Iowa  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
Leonard & Son, A. M.  
Piqua, Ohio  
Piqua Handle Mfg. Co.  
Piqua, Ohio  
Sabin Machine Co.  
Cleveland, Ohio  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

**SEEDERS—BROADCAST**

Allen & Co., S. L.  
Philadelphia, Pa.  
Crown Mfg. Co. (Wheelbarrow)  
Phelps, N. Y.  
Cyclone Seeder Co.  
Urbana, Ind.  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)  
Goodell Co.  
Antrim, N. H.  
Pratt Mfg. Co., Wm. E.  
Joliet, Ill.  
Root Mfg. Co. (Hopper Type)  
Cleveland, Ohio  
Salem Tool Co.  
Salem, Ohio  
(See Adv. on Page 125)  
Smith Agri. Chem. Co.  
Columbus, Ohio  
(See Adv. on Page 123)  
Star Seeder Co.  
Shortsville, N. Y.  
Thompson & Sons, O. E. (Wheelbarrow)  
Ypsilanti, Mich.  
(See Adv. on Page 139)

**SHOVELS**

Ames Shovel & Tool Co.  
North Easton, Mass.  
C-K-R Co.  
Cleveland, Ohio  
Leonard & Son, A. M.  
Piqua, Ohio

**SICKLES**

Leonard & Son, A. M.  
Piqua, Ohio  
Simmons Hardware Co.  
St. Louis, Mo.

**SOIL SHREDDERS**

Kemp Mfg. Co.  
Erie, Pa.

**SPIKER AND TAMPER**

Pick Mfg. Co.  
Omaha, Nebr.

**TOOLS—GARDEN**

Akron-Selle Co.  
Akron, Ohio  
Alexander Mfg. Co.  
Ames, Iowa  
Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Alliance Mfg. Co., The  
Alliance, Ohio  
American Fork & Hoe Co.  
Cleveland, Ohio  
Ames Shovel & Tool Co.  
North Easton, Mass.  
Animal Trap Co. of America  
Lititz, Pa.  
Avery & Sons, B. F.  
Louisville, Ky.  
Brinly Hardy Co.  
Louisville, Ky.  
C-K-R Co.  
Cleveland, Ohio  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.

(See Adv. on Page 125)

Franklin Equipment Co.  
Monticello, Iowa

Gardex, Inc.  
Michigan City, Ind.  
(See Adv. on Page 125)  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Gilson Co., J. E.  
Port Washington, Wis.  
Henderson & Co., Peter (Harrows)  
New York, N. Y.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)

Hooper Co., Geo.  
Memphis, Tenn.

Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)

Imperial Bit & Snap Co.  
Racine, Wis.

Johnson, Inc., Wm.  
Newark, N. J.  
Kingsbury Mfg. Co.  
Keene, N. H.

Leonard & Son, A. M.  
Piqua, Ohio  
Michigan Wire Goods Co.  
Niles, Mich.

(See Adv. on Page 139)  
Norcross & Sons, C. S.  
Bushnell, Ill.

North Wayne Tool Co.  
Oakland, Maine  
Piqua Handle Mfg. Co.  
Piqua, Ohio

Pratt Mfg. Co., Wm. E.  
Joliet, Ill.  
Reichard Mfg. Co., F. H.

Bangor, Pa.  
Stanley Works  
New Britain, Conn.

Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

**GARDEN AND FIELD IMPLEMENTS AND SUPPLIES—Concluded****TRACTORS**

(Also see Garden Tractors, Page 124)  
**Advance Rumely Thresher Co., Inc.**  
 La Porte, Ind.  
**Allis-Chalmers Mfg. Co.**  
 Milwaukee, Wis.  
**Case Co., J. I.**  
 Racine, Wis.  
**Caterpillar Tractor Co.**  
 San Leandro, Calif.  
**Cleveland Tractor Co.**  
 Cleveland, Ohio  
**Ford Motor Co.**  
 Detroit, Mich.  
**Gray Tractor Co., The**  
 Minneapolis, Minn.  
**Gravely Motor Plow & Cultivator Co.**  
 Dunbar, W. Va.  
**International Harvester Co.**  
 Chicago, Ill.  
**Lawson Mfg. Co., John**  
 New Holstein, Wis.  
**Monarch Tractors Corp.**  
 Springfield, Ill.  
**Rogers Tractor & Trailer Co.**  
 Albion, Pa.  
**Shaw Mfg. Co.**  
 Galesburg, Kans.  
**Utilitor Co., The**  
 Dayton, Ohio  
**Wetmore Tractor Mfg. Co.**  
 Sioux City, Iowa  
**Wisconsin Farm Tractor Co.**  
 Sauk City, Wis.

**TRANSPLANTERS**

Nagley Transplanter Co.  
 Memphis, N. Y.  
**New Idea Spreader Co.**  
 Coldwater, Ohio  
**Wiard Plow Co.**  
 Batavia, N. Y.

**TRAPS—MOLE & ANIMAL**

(See Mole & Animal Traps—Page 138)

**TROWELS**

Akron-Selle Co.  
 Akron, Ohio  
**Allen & Co., Inc., S. L.**  
 Philadelphia, Pa.  
**C-K-R Co.**  
 Cleveland, Ohio  
**Hoeft & Co., Inc.**  
 North Chicago, Ill.  
 (See Adv. on Page 155)  
**Johnson, Inc., Wm.**  
 Newark, N. J.  
**Leonard & Son, A. M.**  
 Piqua, Ohio  
**Marshalltown Trowel Co.**  
 Marshalltown, Ia.  
**Pratt Mfg. Co., Wm. E.**  
 Joliet, Ill.

**Reichard Mfg. Co., F. H.**  
 Bangor, Pa.  
**Prophet Dandelion Puller Co.**  
 Prophetstown, Ill.  
**Union Fork & Hoe Co.**  
 Columbus, Ohio  
 (See Adv. on Page 137)

**VEGETABLE & ROOT WASHERS**

**Felins Tying Machine Co.**  
 Milwaukee, Wis.  
**Ingersoll Co., Chas. M.**  
 Rocky River, Ohio  
**Pioneer Mfg. Co.**  
 West Allis, Milwaukee, Wis.

**WEEDERS**

**Allen & Co., Inc., S. L.**  
 Philadelphia, Pa.  
**Animal Trap Co. of America**  
 Lititz, Pa.  
**Arcade Mfg. Co.**  
 Freeport, Ill.  
**Barker Mfg. Co.**  
 David City, Neb.  
**C-K-R Co.**  
 Cleveland, Ohio  
**Ellis-Keystone Agricultural Works**  
 Pottstown, Pa.  
 (See Adv. on Page 125)

**Geyer Mfg. Co.**  
 Rock Falls, Ill.  
**Gilson Co., J. E.**  
 Port Washington, Wis.  
**Hoeft & Co., Inc.**  
 North Chicago, Ill.  
 (See Adv. on Page 155)

**Hudson Mfg. Co., H. D.**  
 Chicago, Ill.  
 (See Adv. on Page 119)  
**Imperial Bit & Snap Co.**  
 Racine, Wis.  
**Johnson, Inc., Wm.**  
 Newark, N. J.  
**Leonard & Son, A. M.**  
 Piqua, Ohio  
**Michigan Wire Goods Co.**  
 Niles, Mich.  
 (See Adv. on Page 139)

Norcross & Sons, C. S.  
 Bushnell, Ill.  
**Prophet Dandelion Puller Co.**  
 Prophetstown, Ill.  
**Reichard Mfg. Co., F. H.**  
 Bangor, Pa.  
**Union Fork & Hoe Co.**  
 Columbus, Ohio  
 (See Adv. on Page 137)

**WHEELBARROWS**

**Defiance Box Co., The**  
 Defiance, Ohio  
**Fairbanks Co.**  
 New York, N. Y.  
**Red Star Products Corp.**  
 Cleveland, Ohio

**GREENHOUSE AND FLORAL SUPPLIES****FLORISTS' SUPPLIES**

**Almo Trading & Importing Co.**  
 New York, N. Y. (Flower Vases)  
**Barnard Co., W. W.**  
 Chicago, Ill.  
**Bird & Son**  
 East Walpole, Mass.  
 (See Adv. on Page 55)  
**Chipman Chem. Co., Inc.**  
 Bound Brook, N. J.  
**Co-operative Flint Glass Co.**  
 Beaver Falls, Pa.  
 (Hyacinth Glasses)  
**Hampden Mfg. Co. (Flower Holder)**  
 New York, N. Y.

**Houchin Co., Thos. W.**  
 Jersey City, N. J.  
**Lewis Co., G. B.**  
 Watertown, Wis.  
**Michigan Wire Goods Co.**  
 Niles, Mich.  
 (See Adv. on Page 139)  
**Randall Co., A. L.**  
 Chicago, Ill.  
**Smith & Young Co.**  
 Indianapolis, Ind.  
**Uniform Products Co.**  
 New York, N. Y.  
**Wilson, Inc., Andrew**  
 Springfield, N. J.  
 (See Adv. on Page 145)

**GREENHOUSE AND FLORAL SUPPLIES—Continued****FLOWER BOXES**

Express Body Corp.  
Crystal Lake, Ill.  
Homecraft Specialty Mfg. Co.  
Mattoon, Ill.  
**Hudson Mfg. Co., H. D.**  
**Chicago, Ill.**  
(See Adv. on Page 119)

Savo Mfg. Co.  
Chicago, Ill.  
Unadilla Silo Co., Inc.  
Unadilla, N. Y.  
Yoho & Hooker (Cypress)  
Youngstown, Ohio

**GLASS**

Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.

**Yoho & Hooker**  
Youngstown, Ohio

**GLASS SUBSTITUTE**

Acetol Products, Inc.  
Wilmington, Del.  
Allen Brothers, Inc.  
Omaha, Nebr.  
Fleming Bros.  
Chicago, Ill.  
Flex-o-Glass Mfg. Co.  
Chicago, Ill.  
**Hoeft & Co., Inc.**  
**North Chicago, Ill.**  
(See Adv. on Page 155)

Turner Bros.  
Bladen, Nebr.  
Vitalite Co.

New York, N. Y.

**GREENHOUSE MATERIAL**

**Hammond Paint & Chemical Works**  
**Beacon, N. Y.**  
(See Adv. on Page 143)  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Vitalite Co.  
New York, N. Y.  
Yoho & Hooker  
Youngstown, Ohio

**HOT BED SASH**

Callahan Co., T. J.  
Dayton, Ohio  
Foley Greenhouse Mfg. Co.  
Chicago, Ill.  
Gordon-Van Tine Co.  
Davenport, Iowa  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Vitalite Co.  
New York, N. Y.  
Yoho & Hooker  
Youngstown, Ohio

**HOT BED SUPPLIES**

Cleveland Textile & Bag Co.  
Cleveland, Ohio  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Uniform Products Co.  
New York, N. Y.

**LABELS—PLANT**

Arcade Mfg. Co.  
Freeport, Ill.

Ball & Socket Mfg. Co.  
West Cheshire, Conn.

Haas & Sons, Jos.  
Newport, Ky.  
Ideal Mfg. Co.  
Des Moines, Iowa  
Smock, L. J. (Wood)  
Cochranton, Pa.  
Stewart Co., Chas.  
Roseland, N. J.

**S-W Supply Co.**  
**Girard, Kans.**  
(See Adv. on Page 139)  
**Yoho & Hooker**  
Youngstown, Ohio

**MOSS, PEAT**

**Atkins & Durbrow, Inc.—(Horticultural)**  
**New York, Chicago & Boston**

(See Adv. below)  
Balfour, Guthrie & Co.  
San Francisco, Calif.  
Bremermann & Co., Ernst  
New York, N. Y.  
Consumers Import Co.  
New York, N. Y.  
Harvey Seed Co. (Grain & Horticultural)  
Buffalo, N. Y.

Ideal Peat Moss Co. (Horticultural)  
New York, N. Y.

Klein Mfg. Co.

Burlington, Iowa

**Loewith, Inc., Julius**

**New York City, N. Y.**

(See Adv. on Page 63)

**McHutchison & Co.**

**New York, N. Y.**

(See Adv. on Page 161)

Miller & Son, Frank  
Chicago, Ill.

Page, Louis E.

Boston, Mass.

Peat Importing Corp.  
Los Angeles, Calif.

**Philadelphia Seed Co.**

**Philadelphia, Pa.**

(See Adv. on Page 26)

Phillips, C. J.

St. Louis, Mo.

Premier Peat Moss Corp.

New York, N. Y.

**Scarlett & Co., Wm. G.**

**Baltimore, Md.**

(See Adv. on Page 40)

Vaughan's Seed Store

Chicago, Ill.

**MOSS, SPHAGNUM**

**American Bulb Co.**

**Chicago, Ill.**

(See Adv. on Page 111)

Consumers Import Co.

New York, N. Y.

Vaughan's Seed Store

Chicago, Ill.

**Williamson, Inc., Garfield**

**New York, N. Y.**

(See Adv. on Page 92)

Wisconsin Moss Co.

Wisconsin Rapids, Wis.

**PEAT MOSS**

**GPM**—Selected quality, green burlap bale head, highly advertised.

**OKPL**—Medium grinding Poultry Litter, chocolate end bale, extensively advertised.

**SORBEX**—Ultra-fine grinding of Peat Moss, 10 bushel bags.

**DRICONURE**—Peat Moss and Cow Manure—a complete organic fertilizer.

**ATKINS & DURBROW, INC., 165 John Street, New York, N. Y.**

177 Milk St., Boston, Mass.

2367 Logan Blvd., Chicago, Ill.

## GREENHOUSE AND FLORAL SUPPLIES—Concluded

## POTS—FLOWER

**Bird & Son**  
**East Walpole, Mass.**  
 (See Adv. on Page 55)  
**Richmond Cedar Works (Cedar Tubs)**  
 Richmond, Va.  
**Syracuse Pottery Co.**  
 Syracuse, N. Y.  
**Western Stoneware Co.**  
 Monmouth, Ill.  
**Zane Pottery Co.**  
 So. Zanesville, Ohio

## POT COVERS—FLOWER

**Bird & Son**  
**East Walpole, Mass.**  
 (See Adv. on Page 55)

## POT SAUCERS—FLOWER

**Almo Trading & Importing Co.**  
 New York, N. Y.  
**Bird & Son**  
**East Walpole, Mass.**  
 (See Adv. on Page 55)  
**Syracuse Pottery Co., Inc.**  
 Syracuse, N. Y.  
**Zane Pottery Co.**  
 Zanesville, Ohio

## SEED AND PLANT FORCERS

**Ball-Biddle Co.**  
 Riverton, N. J.

American Fork & Hoe Co.  
 Cleveland, Ohio  
**Virginia-Carolina Chemical Corp.**  
 Richmond, Va.

## SEED FLATS

**Yoho & Hooker (Cypress)**  
 Youngstown, Ohio

## TRANSPLANTING BOXES

**Ball-Biddle Co.**  
 Riverton, N. J.  
**Belle City Basket Co.**  
 Racine, Wis.

**Bird & Son**  
**East Walpole, Mass.**  
 (See Adv. on Page 55)  
**Burlington Willowware Co.**  
 Burlington, Iowa

## TRANSPLANTING POTS

**Bird & Son, Inc.**  
**East Walpole, N. Y.**  
 (See Adv. on Page 55)  
**Lily Tulip Cup Corp.**  
 New York, N. Y.

## TREE AND PLANT TUBS

**Richmond Cedar Works**  
 Richmond, Va.

## INOCULANTS AND PLANT FOODS

## INOCULANTS

**Dickinson Co., The Albert**  
**Chicago, Ill.**  
 (See Adv. on Page 132)  
**Edwards Laboratory, The**  
 Lansing, Mich.  
**Kalo Inoculant Co.**  
**Quincey, Ill.**  
 (See Adv. on Page 135)  
**McQueen Bacteria Co.**  
 Baltic, Ohio  
**Nitragin Co., The**  
**Milwaukee, Wis.**  
 (See Adv. on Page 135)  
**Stimuplant Laboratories, Inc.**  
**Long Island City, N. Y.**  
 (See Adv. on Page 135)  
**Urbana Laboratories**  
**Urbana, Ill.**  
 (See Adv. on Page 134)

## PLANT FOODS

**American Agricultural Chem. Co.**  
 New York, N. Y.  
**Armour Fertilizer Works**  
 Atlanta, Ga.  
**Barrett Co., The**  
 New York City, N. Y.  
**Bon Arbor Chemical Co.**  
 Paterson, N. J.  
**Carus Chemical Co.**  
 La Salle, Ill.  
**Darling & Co.**  
 Chicago, Ill.  
**Fertilawn Co.**  
**Hamilton, N. Y.**  
 (See Adv. on Page 31)

**Goulard & Olena, Inc.**  
**New York, N. Y.**  
 (See Adv. on Page 145)  
**Grasselli Chemical Co., The**  
**Cleveland, Ohio**  
 (See Adv. on Second Cover)  
**The Heil Co.**  
 Milwaukee, Wis.  
**International Agricultural Corp.**  
 New York, N. Y.  
**Plantabbs Corporation**  
 Baltimore, Md.  
**Premier Poultry Manure Co.**  
 Chicago, Ill.  
**Pulverized Manure Co.**  
**Chicago, Ill.**  
 (See Adv. on Page 123)  
**Sewerage Commission**  
 Milwaukee, Wis.  
**Smith Agricultural Chemical Co.**  
**Columbus, Ohio**  
 (See Adv. on Page 123)  
**Stimuplant Laboratories, Inc.**  
**Long Island City, N. Y.**  
 (See Adv. on Page 135)  
**Swift & Co.**  
 Chicago, Ill.  
**Synthetic Nitrogen Products Corp.**  
 New York, N. Y.  
**Tennessee Corporation**  
 New York, N. Y.  
**Virginia-Carolina Chem. Corp.**  
 Richmond, Va.  
**Williamson, Inc., Garfield**  
**New York, N. Y.**  
 (See Adv. on Page 92)  
**Wilson, Inc., Andrew**  
**Springfield, N. J.**  
 (See Adv. on Page 145)

Our new introduction - for spot and for contract  
**ALL-DOUBLE DWARF PEONY - FL.  
"CARMINE GLORY"**



T. SAKATA & CO.

YOKOHAMA, JAPAN

The originators of ALL-DOUBLE or 100% Double Giant Petunias and other novelties.

We grow a full line of Flower Seeds and Specialize in PETUNIA, PANSY, PHLOX, DOUBLE PORTULACA, etc.

Write for general catalogue and further details

**HERBST BROTHERS, Inc.**

92 WARREN STREET

NEW YORK, N. Y.

Agents for United States and Canada

# NOD-O-GEN

## Quality

The culture with the highest efficiency test. Jelly type culture most strongly recommended by agricultural authorities. Best strains of proper organisms effective and proved in constant field and laboratory tests. Finest ingredients used. Produced in an approved laboratory under personal supervision of a leading technical bacteriologist.

## Sales Appeal

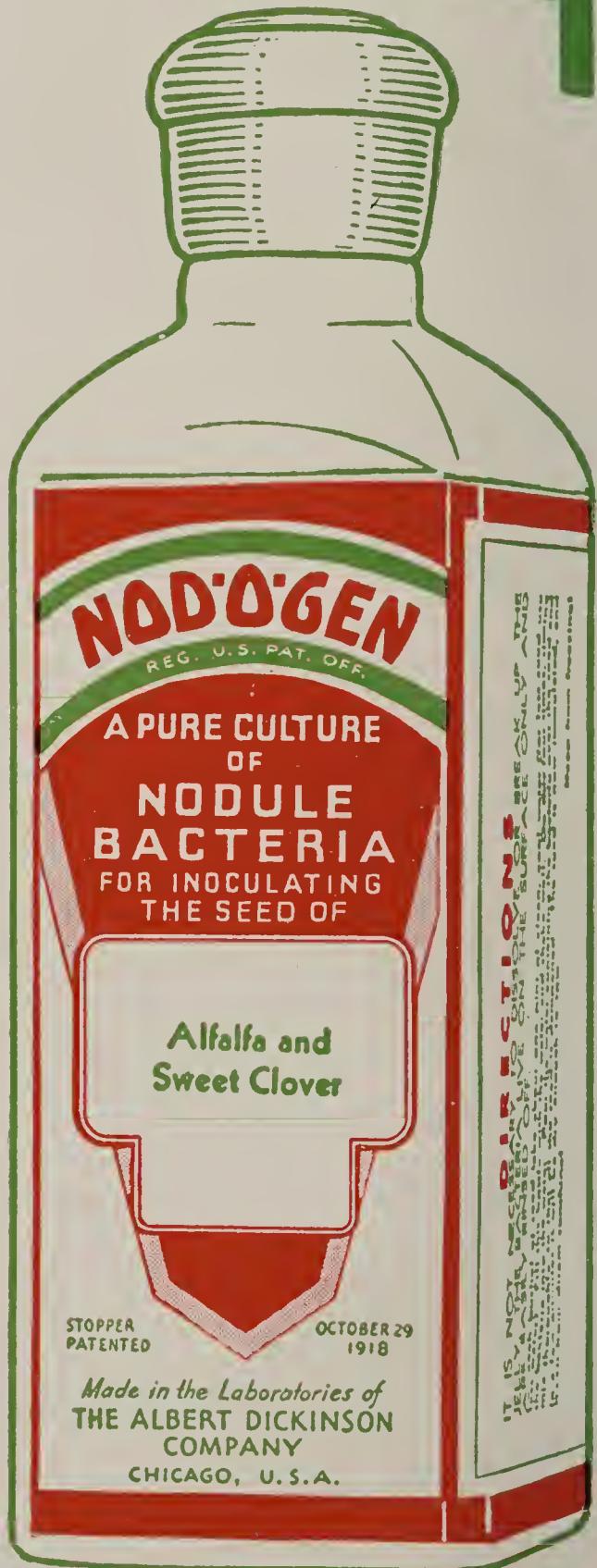
The culture having all the good advantages. Patented ventilating stopper. Most attractive label and packaging. It sells at sight - you can see it is good. Sales increasing year after year. Now in the 21st year of production in our own laboratory. Nationally known. Dealer sales helps and advertising supplied.

## Low Cost

The culture selling at most reasonable price consistent with high quality. Economical to the user - highly profitable to the dealer.

Write the United States Department of Agriculture or your local experiment station regarding NOD-O-GEN.

We will be glad to place full particulars before any dealer interested in joining the host of satisfied NOD-O-GEN distributors.



Produced in Laboratories of

**THE ALBERT DICKINSON COMPANY**  
CHICAGO ILLINOIS

Refiners & Distributors PINE TREE Farm Seeds & GLOBE FEEDS

# LEGUME INOCULATION

GROWERS of legume crops find that seed inoculation pays. It pays for the following reasons: (1) It enables plants to secure nitrogen from the air and passes it on to the plants for their use. (2) It prevents crop failures. Very often a legume crop is a complete failure if the seed has not been inoculated. (3) It increases crop yields; in some cases several hundred per cent. (4) It improves the crop quality. (5) It enriches the soil.

### Reliable Dealers

There are many reliable manufacturers of legume inoculation material. It is not necessary any longer to use cultures from state agricultural experiment stations, for these commercial concerns have reliable and tested cultures. These firms employ bacteriologists who have made this line of work a life-long study. Each culture for the different kinds of legumes is carefully prepared and when properly mixed with the seeds to be planted the desired inoculation results.

These commercial cultures are inspected and tested from time to time by state and government officials, which tends to keep manufacturers careful as to the potency of their product. As a result of the painstaking manner in which these legume

cultures are manufactured, some excellent cultures are now available.

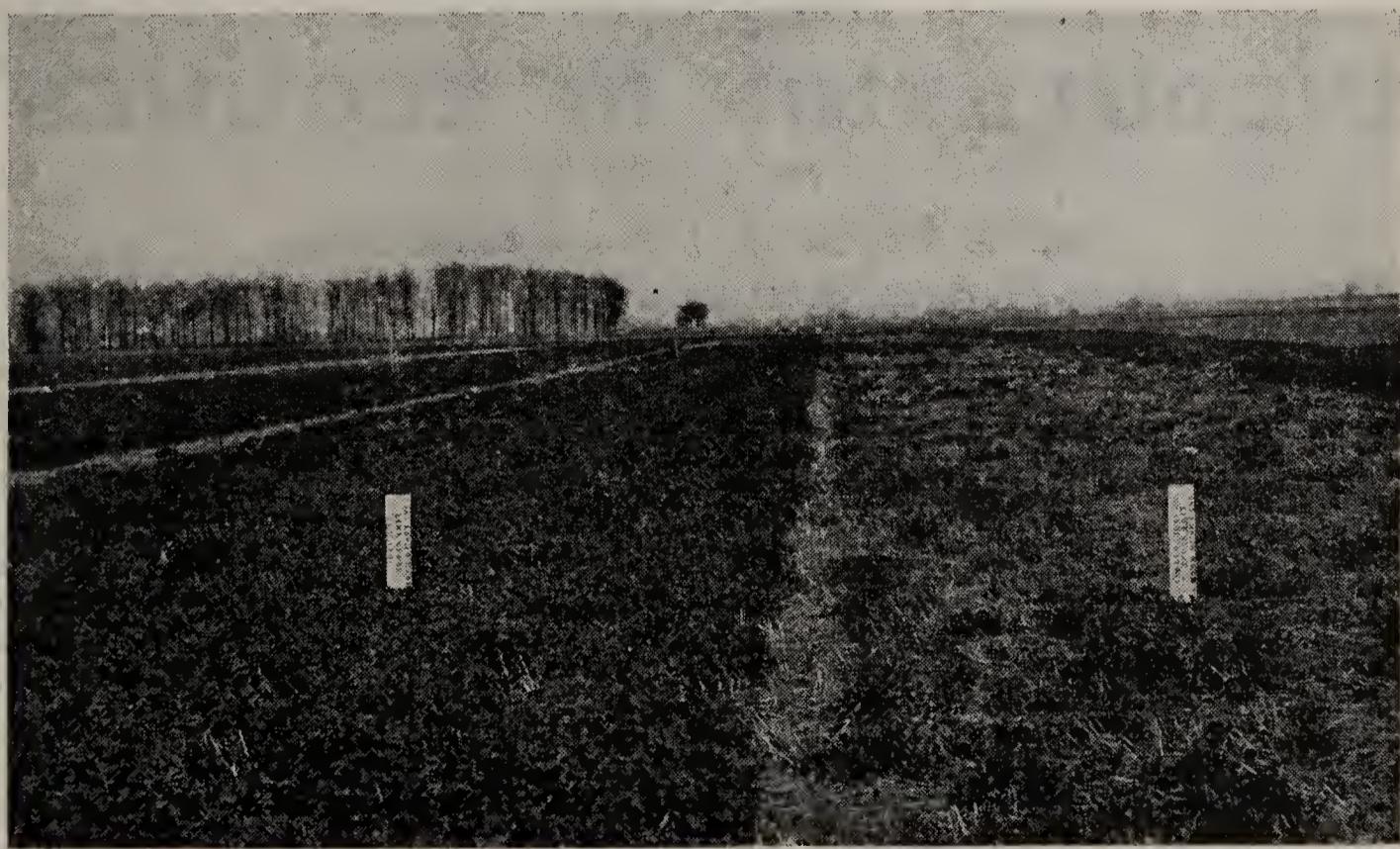
### Increased Demand

The demand for inoculants is increasing each year. Farmers are slowly but surely finding out that inoculating seed pays. This demand is bound to increase as time goes on and there is little question but that the demand will be doubled in a very short time.

Due to this increased interest in inoculation seed dealers are finding that it pays to sell well known brands of inoculants.

The margin of profit obtained from the retailing of legume inoculants is very attractive. Seedsmen should put special stress on their sales efforts to urge all buyers of legume seed to purchase a supply of inoculants sufficient to treat the seed they buy.

The manufacturers of legume inoculants put up their products in attractive containers thus making them practical for display purposes. They also cooperate with seed dealers in supplying them with window display material, electros, and advertising copy for seed catalogs and local newspaper advertising. In fact,



Courtesy of Agricultural Experiment Station, Purdue University, Lafayette, Ind.

(Left) Limestone and a commercial inoculant were used on this field of sweet clover.  
(Right) Limestone only was used.

these manufacturers make every effort possible to aid seedsmen in promoting the sale of legume inoculants.

#### Seeds That Need Inoculating

The following seeds require inoculation in order to assure a perfect stand: Red clover, alfalfa, sweet clover, alsike clover, white clover, crimson clover, bur clover, yellow trefoil, lespedeza, garden peas, field peas, lentil, vetches, sweet peas, cowpeas, soybeans, garden beans, field beans, lima beans, velvet beans, peanuts, beggarweed, lupines, sainfoin and other legumes.

#### Value of a Culture

Dr. E. B. Fred of the Wisconsin Agricultural Experiment Station says that the value of a culture seems to depend in a large measure on at least five factors:

1—Upon the organism. It is essential that the culture of bacteria contain the proper organism to form nodules on the desired host plant. In general, it is desirable to have only the one type of organism in the culture.

2—Upon the efficiency of the strain. Select an active strain of the desired organism. Because of the variation between strains in relation to effectiveness, every

effort should be made to select strains of the bacteria which are known to be of decided benefit to the host plant, and to keep these tested cultures under conditions which will maintain the organisms in an active state.

3—Upon the number of bacteria. Just how many bacteria are required in order to produce the maximum number of effective nodules is not known. In general an abundance of the bacteria, probably several thousand per seed, produces the best results.

4—Upon age of culture. Old cultures may be low in total number of viable cells and those which are alive are presumably in a weakened condition. Naturally a biological product such as a culture of bacteria decreases rapidly in number of vegetative cells with an increase in age. To secure the best result use only young active cultures.

5—Upon culture medium. The substrate on which the organisms are grown exerts a profound influence on the number and efficiency of the cells. The authors prefer a medium low in available nitrogen and with a neutralizing agent, such as calcium carbonate, present.

*Superior  
Strains*



*Fresh  
Strong*

## INOCULATION OF LEGUMES

*Backed by*

**Staff of Specially Trained Scientists  
Modern Scientific Laboratory**

**Controlled Greenhouse Tests, Extensive Field Experiments  
Reliable Organization and Sound Policies**

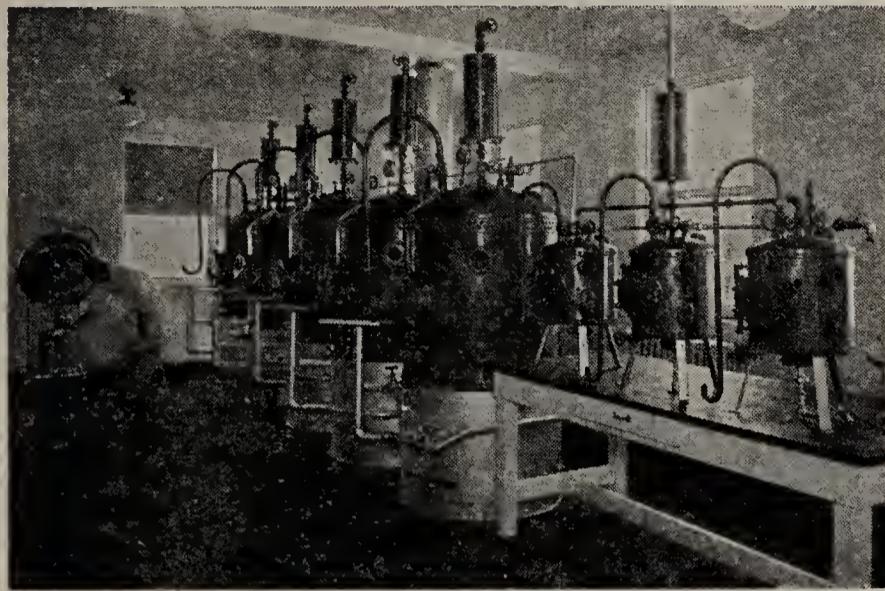
*Offers Large Profit for Small Investment*

**THE URBANA LABORATORIES,**

**URBANA, ILLINOIS**

**Let SEED WORLD Service Bureau help you.  
No charge. Just write us and we will do the rest.  
SEED WORLD, 325 W. Huron St., Chicago**

# NITRAGIN'S NEW HOME contains the most modern laboratory of its kind in the world.



Mass production of legume bacteria is scientifically controlled in these exclusive NITRAGIN patented incubators (U. S. Pat. No. 1,618,461). The bacteria are grown under a special process (U. S. Pat. No. 1,909,622) which insures uniformity in quality, and makes possible the high bacteria count on every NITRAGIN can.



The Nitragin Co., Inc.  
3747 No. Booth St.,  
Milwaukee, Wis.

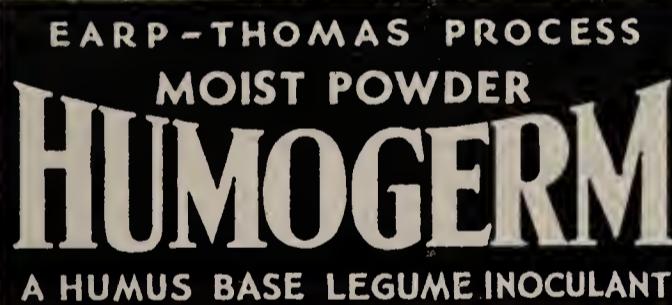
FOR over 35 years NITRAGIN — The Original Legume Inoculator — has maintained its leadership . . . because there is no substitute for quality.

NITRAGIN is an important item that builds seed sales and seed reputations. Always dependable.

Extensive national advertising — radio — dealer helps — popular prices — liberal margins make NITRAGIN a profit builder too.

*Write for discounts.*

for  
alfalfa,  
clovers,  
soy beans,  
cow peas,  
vetch,  
peas,  
beans—  
all legumes



Users 1935 Price  
Based on Packing Guarantee  
**3½c Per Billion**  
HIGH-BRED SELECTED  
NITROGEN-FIXING BACTERIA

Cash in on the increased sales, make more profit from inoculation by featuring recognized highest quality at

**50c Per Bushel**

(Small Seed Size)  
35c Per Bu. Large Seeds

**KALO INOCULANT CO.**  
Quincy, Illinois

## A QUICK TRIP

From US to YOU to Your CUSTOMER

Every customer who buys a plant, flower or vegetable seed needs food for healthier growth.

No plant can slack as Stim-U-Plant acts, and every successful plant enhances your reputation.

**STIM-U-PLANT**

The Original Plant Food Tablet.

Most efficient plant food on market  
Nationally advertised—Sells easily

**INCREASES YOUR PROFITS**

**SIZES 10c, 25c, 75c, \$3.50**

Packed in attractively, lithographed packages and cartons for counter display. Quick turnover.

Ask for attractive sales offer.

**STIMUPLANT LABORATORIES, INC.**  
Long Island City, N. Y.

## LAWN IMPLEMENTS AND SUPPLIES

### DIGGERS—DANDELION

Prophet Dandelion Puller Co.  
Prophetstown, Ill.  
**Union Fork & Hoe Co.**  
Columbus, Ohio  
(See Adv. on Page 137)

### GARDEN HOSE

Atlantic Mfg. Co.  
Wilmington, Del.  
Diamond Rubber Co., Inc.  
Akron, Ohio  
Electric Hose & Rubber Co.  
Wilmington, Del.  
Gates Rubber Co.  
Denver, Colo.  
Goodrich Rubber Co.  
Akron, Ohio  
Goodyear Rubber Co.  
Akron, Ohio  
Hayes Pump & Planter Co.  
Galva, Ill.  
Leonard & Son, A. M.  
Piqua, Ohio  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Tillinghast Rubber Co., Inc., B. C.  
Philadelphia, Pa.

### GRASS SHEARS

Alliance Mfg. Co.  
Alliance, Ohio  
Leonard & Son, A. M.  
Piqua, Ohio  
Peck Stow & Wilcox Co.  
Southington, Conn.  
Smith & Son, Inc., Seymour  
Oakville, Conn.

### HEDGE TRIMMERS

C-K-R Co.  
Cleveland, Ohio  
Clyde Cutlery Co., The  
Clyde, Ohio  
**Deteo Mfg. Co.**  
Oaks, Montgomery Co., Pa.  
(See Adv. on Page 137)  
Disston & Sons, Inc., Henry  
Philadelphia, Pa.  
Jaeger Prod. Co.  
Trenton, N. J.  
Leonard & Son, A. M.  
Piqua, Ohio  
Skilsaw, Inc. (Electric)  
Chicago, Ill.  
Smith & Son, Inc., Seymour  
Oakville, Conn.  
Village Blacksmith Folks, The  
Watertown, Wis.  
Wallington Machine Co., Inc. (Electric)  
Passaic, N. J.

### HOSE COUPLINGS

Allen Mfg. Co., W. D.  
Chicago, Ill.  
Tillinghast Rubber Co., Inc., B. C.  
Philadelphia, Pa.

### HOSE NOZZLES

Allen Mfg. Co., W. D.  
Chicago, Ill.  
Electric Sprayit Co.  
South Bend, Ind.  
McClain Bros.  
Canton, Ohio  
Smith & Co., D. B.  
Utica, N. Y.  
Tillinghast Rubber Co., Inc., B. C.  
Philadelphia, Pa.

### HOSE REELS

Anker-Holth Mfg. Co.  
Port Huron, Mich.  
C-K-R Co.  
Cleveland, Ohio

Specialty Mfg. Co.  
St. Paul, Minn.  
Tillinghast Rubber Co., Inc., B. C.  
Philadelphia, Pa.

### LAWN EDGE TRIMMERS

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
C-K-R Co.  
Cleveland, Ohio  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
Imperial Bit & Snap Co.  
Racine, Wis.  
Leonard & Son, A. M.  
Piqua, Ohio  
Philadelphia Lawn Mower Co., Inc.  
Philadelphia, Pa.  
Superior Metal Spinning & Mfg. Co.  
Toledo, Ohio  
**Union Fork & Hoe Co.**  
Columbus, Ohio  
(See Adv. on Page 137)

### LAWN FURNITURE AND DECORATIONS

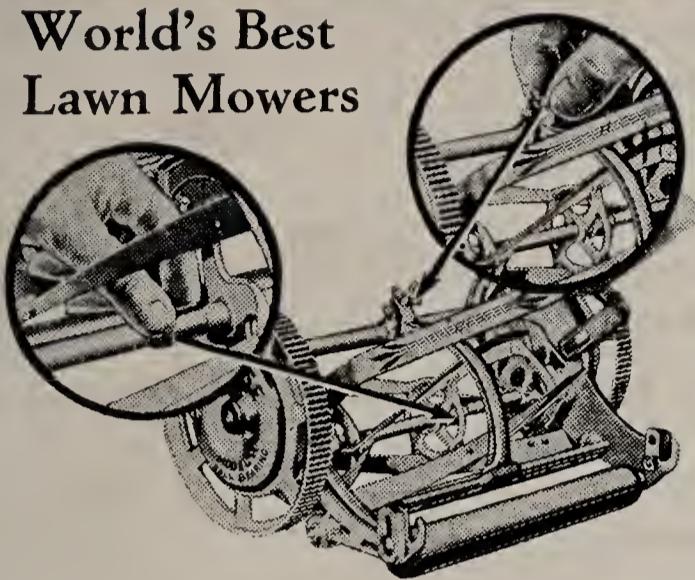
Ball-Biddle Co.  
Riverton, N. J.  
Brush Pottery Co. (Fountains—Vases)  
Zanesville, Ohio  
Buffalo Wire Works Co., Inc.  
Buffalo, N. Y.  
Erickson Co., C. E.  
Des Moines, Iowa  
Express Body Corp.  
Crystal Lake, Ill.  
Hartman-Sanders  
Chicago, Ill.  
Homecraft Specialty Mfg. Co.  
Mattoon, Ill.  
Humboldt Redwood Lumber Co.  
Chicago, Ill.  
Northwestern Fence & Wire Works  
Portland, Ore.  
Root Co. of Iowa, A. I.  
Council Bluffs, Iowa  
Smith Wire & Iron Wks., F. P.  
Chicago, Ill.  
Standard Ventilator Co. (Trellis)  
Lewisburg, Pa.  
Staples Foundry Co.  
Mount Vernon, Ind.  
Testrite Instrument Co.  
New York, N. Y.  
Unadilla Silo Co., Inc.  
Unadilla, N. Y.  
Western Stoneware Co.  
Monmouth, Ill.  
Woodcraft Co., The  
Dalton, N. Y.  
Yoho & Hooker (Trellis)  
Youngstown, Ohio

### LAWN MOWERS

American Lawn Mower Co.  
Muncie, Ind.  
Blair Mfg. Co.  
Springfield, Mass.  
Brinly Hardy Co.  
Louisville, Ky.  
Clipper Mfg. Co.  
Dixon, Ill.  
Coldwell Lawn Mower Co.  
Newburgh, N. Y.  
Cooper Mfg. Co. (Power)  
Marshalltown, Iowa  
Cushman Motor Works (Power)  
Lincoln, Nebr.  
Dille & McGuire Mfg. Co.  
Richmond, Ind.  
**Eclipse Lawn Mower Co.**  
Prophetstown, Ill.  
(See Adv. on Page 137)  
Elwood Lawn Mower Mfg. Co.  
Elwood, Ind.  
Gilson-Bolens Mfg. Co. (Power)  
Port Washington, Wis.

# Eclipse

## World's Best Lawn Mowers



### Nationally Accepted Profitable to Sell

Exclusive Finger Tip Adjustment and Automatic Self Sharpening . . . plus lawn protection, are features that create the desire to own a genuine Eclipse Mower. Millions of home owners know and demand Eclipse, because of years of national advertising.

### Eclipse Power Mowers

Economical . . . efficient . . . simple to operate. Three sizes. Powered for all lawns. Priced from \$137.50 up. Write for our proposition to seed merchants on hand and power mowers.



**Eclipse Lawn Mower Company**  
*Manufacturers*  
PROPHETSTOWN, ILL., U. S. A.

## Sell Tools That Help You **SELL GARDENING**

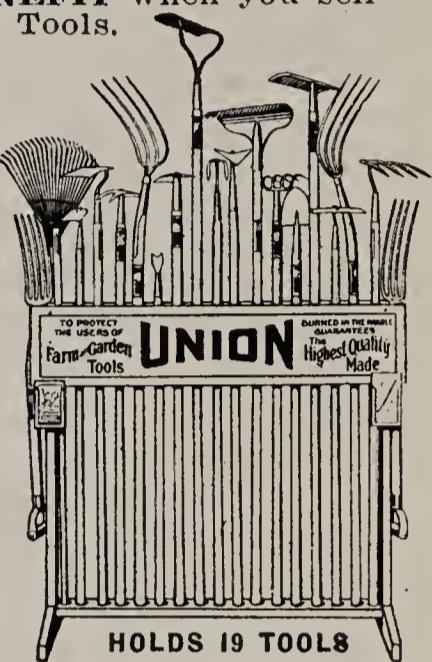
**UNION** forged steel tools (lighter, stronger, better designed) encourage more home gardening by making it easier. We have also bought and distributed over 1,000,000 copies of Harry O'Brien's famous garden book, telling people how to buy and use more seeds, plants, fertilizers, etc., as well as tools.

**WE BOTH BENEFIT** when you sell **UNION** Garden Tools.

This **DISPLAY  
RACK** Makes  
50% More  
Sales!

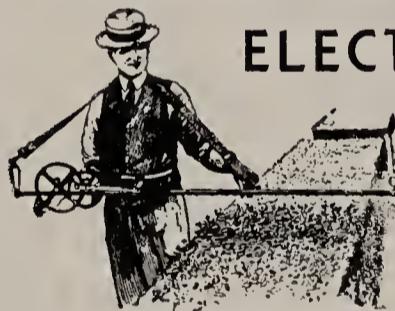
Puts tools out where people can see and handle them. Has increased sales for 7000 dealers. Ties up with **UNION** advertising in leading national magazines. Portable, all-steel, brilliantly enameled. Worth \$7.50. Get it FREE.

*Send for Free Offer!*



**THE UNION FORK & HOE CO.  
COLUMBUS, OHIO**

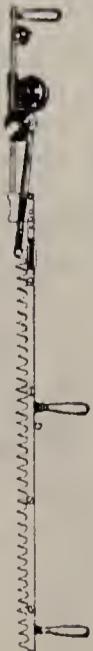
*Little Wonder*  
**HEDGE TRIMMER**  
**ELECTRIC AND**  
**HAND**  
**POWER**



Thousands in use all over the world—A Marvel—Trims ten times faster than hand shears. Easy to operate. A model and size to meet every need.

*Write for distributors terms.*

**DETCO MFG. CO.**  
**OAKS, MONTG. CO., PA.**



**LAWN IMPLEMENTS AND SUPPLIES—Concluded****Lawn Mowers—Continued**

Henley Lawn Mower Co.  
Richmond, Ind.  
**Hudson Mfg. Co., H. D.**  
Chicago, Ill.  
(See Adv. on Page 119)  
**Ideal Power Lawn Mower Co. (Power)**  
Lansing, Mich.  
**Jacobsen Mfg. Co. (Power)**  
Racine, Wis.  
Mast, Foos Co.  
Springfield, Ohio  
**Milbradt Mfg. Co. (Power)**  
St. Louis, Mo.  
**Modern Machine Works, Inc. (Power)**  
Milwaukee, Wis.  
**Moto-Mower Co. (Power)**  
Detroit, Mich.  
**New Beeman Tractor Co., The (Power)**  
Minneapolis, Minn.  
**Outboard Motors Corp.**  
Milwaukee, Wis.  
**Philadelphia Lawn Mower Co., Inc.**  
Philadelphia, Pa.  
**Shaw Mfg. Co. (Power)**  
Galesburg, Kansas  
**Stearns & Co., E. C. (Power)**  
Syracuse, N. Y.  
**Toro Mfg. Co.**  
Minneapolis, Minn.  
**Townsend & Co., S. P.**  
Bloomfield, N. J.

**LAWN ROLLERS**

Caledonia Bean Harvester Works  
Caledonia, N. Y.  
**Graham & Co., John H.**  
New York City, N. Y.  
**Leonard & Son, A. M.**  
Piqua, Ohio  
**Toro Mfg. Co.**  
Minneapolis, Minn.  
**Wilder-Strong Implement Co.**  
Monroe, Mich.  
**Worthington Mower Co.**  
Stroudsburg, Pa.

**LAWN SEEDERS**

**Salem Tool Co.**  
Salem, Ohio  
(See Adv. on Page 125)  
**Thompson & Sons, O. E.**  
Ypsilanti, Mich.  
(See Adv. on Page 139)

**LAWN SPRINKLERS**

Allen Mfg. Co., W. D.  
Chicago, Ill.  
**Alsteel Mfg. Co.**  
Battle Creek, Mich.  
**Armstrong Electric & Mfg. Corp.**  
Huntington, W. Va.  
**Chicago Flexible Shaft Co.**  
Chicago, Ill.  
**Coldwell Lawn Mower Co.**  
Newburgh, N. Y.  
**Dayton Irrigation Co.**  
Dayton, Ohio  
**Diamond Rubber Co.**  
Akron, Ohio  
**Double Rotary Sprinkler Co.**  
Kansas City, Mo.  
**Imperial Bit & Snap Co.**  
Racine, Wis.  
**Kopcsay, Jos.**  
South Bend, Ind.

**Leonard & Son, A. M.**

Piqua, Ohio  
**March Automatic Irrigation Co.**

Muskegon, Mich.  
**Peck Bros. & Co.**

New Haven, Conn.  
**Rose Mfg. Co., Frank**

Hastings, Nebr.  
**Smith & Co., D. B.**

Utica, N. Y.  
**Tillinghast Rubber Co., Inc., B. C.**

Philadelphia, Pa.  
**White Showers, Inc.**

Detroit, Mich.  
**X. L. Mfg. Co.**

Chicago, Ill.  
(See Adv. on Page 139)

**LIME**

International Agricultural Corp.  
New York, N. Y.

Marble Cliff Quarries Co.  
Columbus, Ohio

**MOLE AND ANIMAL TRAPS**

Abington Trap Co.

Abington, Ill.  
**Animal Trap Co. of America**

Lititz, Pa.  
**Goulard & Olena, Inc.**

New York, N. Y.  
(See Adv. on Page 145)

**Grelle, C. E. (Mole)**

Portland, Ore.  
(See Adv. on Page 55)

Macabee Gopher Trap Co. (Gopher)  
Los Gatos, Calif.

**Michigan Wire Goods Co.**  
Niles, Mich.  
(See Adv. on Page 139)

Pratt Co., Wm. E.  
Joliet, Ill.  
**Roper Co., J. R.**

San Leandro, Calif.  
**Schroeter Bros. Hdwe. Co. (Mole)**

St. Louis, Mo.  
**NOZZLE HOLDERS**

Anker Holth Mfg. Co.  
Port Huron, Mich.

**RAKES—DANDELION AND LAWN**

Hall Mfg. Co. (Lawn)  
Cedar Rapids, Iowa

**Union Fork & Hoe Co.**  
Columbus, Ohio  
(See Adv. on Page 137)

**ROCK GARDEN NOVELTIES**

Ball-Biddle Co. (Trellis)  
Riverton, N. J.

**Michigan Wire Goods Co.**  
Niles, Mich.  
(See Adv. on Page 139)

Western Stoneware Co.  
Monmouth, Ill.

**ROOT WATERER & FERTILIZER**

Stauffer Machine Works  
Honey Brook, Pa.

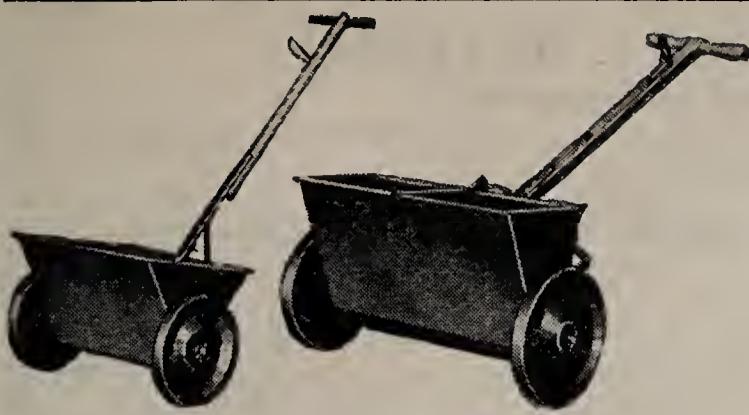
**SOD CUTTERS**

Lane & Son, M. R.  
Ardmore, Penna.

**Union Fork & Hoe Co.**  
Columbus, Ohio  
(See Adv. on Page 137)

**Patronize those who made it possible  
to publish this Directory**

**See Advertisers' Index on page 180**



**PROFITABLE  
for  
CATALOG & STORE  
*Lawnettes***

Made in five different sizes

**Every Lawn needs one**

The easy, quick, dependable way of distributing lawn grass seed, plant foods and other materials in the required amount.

Our Thompson Seeders and Spreaders open up tremendous sales possibilities for you with your prospects and customers.

Let us explain how easily with our proposition you can secure increased sales—write today.

**O. E. THOMPSON & SONS**  
121 RIVER BLVD.  
YPSILANTI MICHIGAN



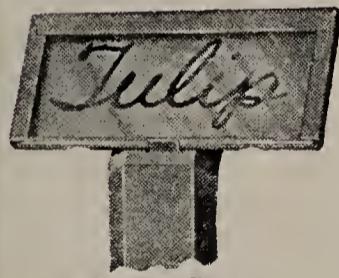
« « « « «  
POPULAR AND  
PROFITABLE  
ANDROCK GARDEN  
ACCESSORIES  
FOR YOUR 1935 CATALOG

- ▼ Reddick Mole Trap
  - ▼ Little Giant Mole Trap
  - ▼ Interchangeable Wire Plant Supports
  - ▼ One and Two-Eye Wire Stakes
  - ▼ Wire Wreath Easels
  - ▼ Sectional Flower Garden Fence and Plant Support
  - ▼ Sectional Corner Guard Fence
  - ▼ Hanging Baskets
  - ▼ Hanging Basket Hook
  - ▼ Flower Pot Bracket
  - ▼ Extra-Heavy, All-Steel Weeders (Long and Short Handle)
  - ▼ Decorative Bird Sets
  - ▼ Garden Hose Supporter
  - ▼ Star Pocket Gopher Trap
- Ask for catalog and prices*

**MICHIGAN WIRE GOODS CO.**  
NILES - - - MICHIGAN

**PERFECTION MARKERS**

**ARE ALWAYS IN DEMAND BY YOUR SEED CUSTOMERS  
because they want Sturdy, Convenient, Economical markers  
THE PERFECTION LINE IS A COMPLETE LINE**



Plant Stake

a marker for every possible need.

Perfection Markers are made from galvanized sheets and welded together—they are practically indestructible and may be used year after year, an indefinite number of times, for a variety of markings. Green baked enamel finish. Write for catalog, samples and dealer's discount.



Garden Marker

**The S-W SUPPLY CO.**

GIRARD

KANSAS



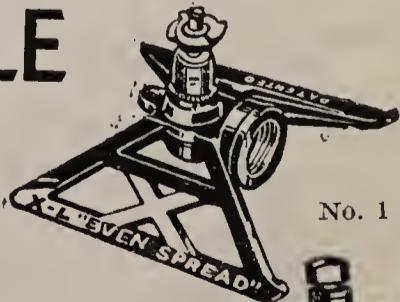
**INCOMPARABLE**

**As to Performance, Discounts,  
Low Prices, Appearance**

**Profit Producers**

Large difference between Factory and Retail price allows very attractive Profits to Jobbers and Dealers. Every X.L. Sprinkler UNCONDITIONALLY guaranteed to satisfy.

**X. L. MFG. CO.** 3806 Montrose Ave.  
CHICAGO, ILL.



No. 1



No. 11

Manufacturers of "Even Spread"—"5 in 1" and "Hydro Spray" Sprinklers. Sprinkler Heads for Irrigation—Fountains—Air conditioning, etc.

## SPRAYERS AND SPRAY MATERIALS

**Insecticides, Fungicides and Repellents**

### **ANIMAL DIPS**

Carbola Chemical Co.  
Natural Bridge, N. Y.

Carco Spray Co., Inc.  
Tacoma, Wash.

Chipman Chemical Co., Inc.  
Bound Brook, N. J.

Conkey Co., G. E.  
Cleveland, Ohio

General Chem. Co.  
New York, N. Y.

Germo Mfg. Co.  
St. Louis, Mo.

Good, Inc., James  
Philadelphia, Pa.

(See Adv. on Page 147)

Grasselli Chemical Co., The  
Cleveland, Ohio

(See Adv. on Second Cover)

Lee Co., Geo. H.  
Omaha, Neb.

LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.

Merck & Co., Inc.  
Rahway, N. J.

Nicotine Mfg. Co.  
Henderson, Ky.

Pratt Food Co.  
Philadelphia, Pa.

Sherwin-Williams Co.  
Cleveland, Ohio

Tobacco By-Products & Chem. Corp.  
Louisville, Ky.

(See Adv. on Pages 140-142-157-159)

### **COPPER OXIDE (RED)**

Rohm & Haas Co.  
Philadelphia, Pa.

(See Adv. on Page 145)

### **CREOSOTE OIL**

C-A Wood Preserver Co.  
St. Louis, Mo.

(See Adv. on Page 155)

### **CROW REPELLENTS**

Bowker Chemical Co.  
New York, N. Y.

Cedar Hill Formulae Co.  
New Britain, Conn.

Good, Inc., James  
Philadelphia, Pa.

(See Adv. on Page 147)

Goulard & Olena, Inc.  
New York, N. Y.

(See Adv. on Page 145)

Hammond Paint & Chem. Co.  
Beacon, N. Y.

(See Adv. on page 143)

### **DOG REPELLENTS**

Acme White Lead & Color Works  
Detroit, Mich.

(See Adv. on Page 153)

Bohlender Plant Chemicals, Inc.  
Tippecanoe City, Ohio

(See Adv. on Page 141)

Hammond Paint & Chem. Co.  
Beacon, N. Y.

(See Adv. on page 143)

### **MELL-NORR**

Fort Wayne, Ind.

**Tobacco By-Products & Chem. Corp.**

Louisville, Ky.

(See Adv. on Pages 140-142-157-159)

### **DUSTERS**

Acmeine Mfg. Co.

Traverse City, Mich.

Bowker Chemical Co.

New York, N. Y.

Brown Co., E. C.

Rochester, N. Y.

Chipman Chem. Co., Inc.

Bound Brook, N. J.

**Dobbins Mfg. Co.**

North St. Paul, Minn.

(See Adv. on Page 141)

Electric Sprayit Co.

South Bend, Ind.

Feeny Manufacturing Co.

Muncie, Ind.

"Friend" Mfg. Co.

Gasport, N. Y.

**Hoeft & Co.**

North Chicago, Ill.

(See Adv. on Page 155)

Houchin Co., Thos. W.

Jersey City, N. J.

**Hudson Mfg. Co., H. D.**

Chicago, Ill.

(See Adv. on Page 119)

Lirio, P. E.

Vineland, N. J.

Los Angeles Chemical Co.

Los Angeles, Cal.

Peerless Dust Gun Co.

Cleveland, Ohio

Root Mfg. Co.

Cleveland, Ohio

Smith & Co., Inc., D. B.

Utica, N. Y.

Wilson, Inc., Andrew

Springfield, N. J.

(See Adv. on Page 145)

### **FLY REPELLENTS**

Chipman Chem. Co., Inc.

Bound Brook, N. J.

Electric Sprayit Co.

South Bend, Ind.

General Laboratories, Inc.

Philadelphia, Pa.

Germo Mfg. Co.

St. Louis, Mo.

Good, Inc., James

Philadelphia, Pa.

(See Adv. on Page 147)

Goulard & Olena, Inc.

New York, N. Y.

(See Adv. on Page 145)

LeGear Medicine Co., Dr. L. D.

St. Louis, Mo.

Rex Research Corp.

Toledo, Ohio

Tanglefoot Co., The

Grand Rapids, Mich.

Toledo Rex Spray Co.

Toledo, Ohio

## **DOGS MUST LEARN TO DISCRIMINATE**



No one wants stained and discolored shrubbery and so dogs must learn to keep all four feet on the ground around the premises. 1½ teaspoonsfuls of "Black Leaf 40" per gallon of water sprayed on the lower branches of evergreens and shrubbery will prevent dogs from committing nuisance. Harmless to dogs—but they do not like the odor.

This new use now added to the many other uses for "Black Leaf 40" is opening up a still broader market and attracting a new group of customers for this fast-selling, steady repeating insecticide.

Tobacco By-Products & Chemical Corp. Inc.  
Louisville, Kentucky

**Black Leaf 40**

**Fun-L-Fill**

Dobbins Fun-L-Fill Sprayers fill without spilling. A great convenience; a great saving. Dobbins Sprayers will increase your sales and profits.

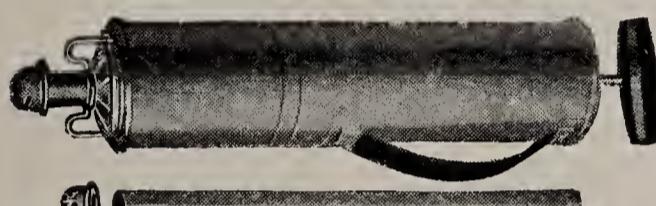
## **DOBBINS SUPERBILT SPRAYERS**



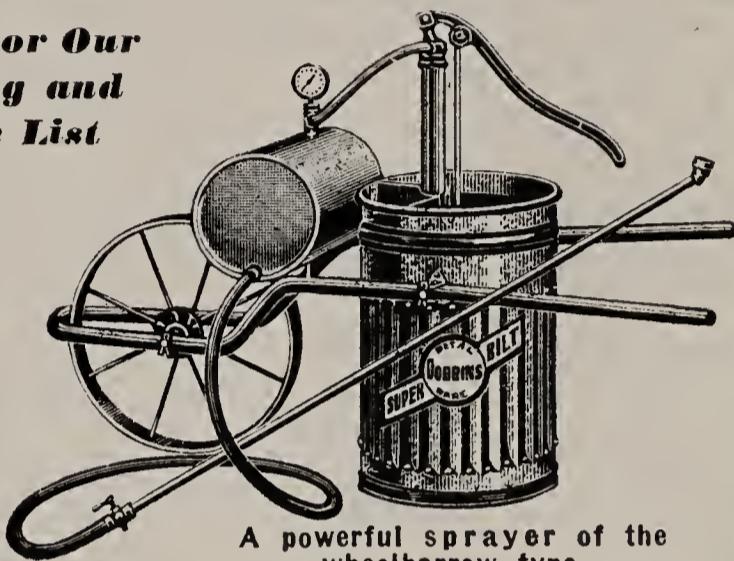
A complete line of Tin Atomizers.

You will find Dobbins Superbilt Sprayers a very profitable line to feature in your seed catalog, or over-counter sales. Sprayers go hand-in-hand with seed and insecticide sales. Seed catalog copy and electros furnished on request.

**Write for Our  
Catalog and  
Price List**



We manufacture a complete line of hand and crank power Dusters.



A powerful sprayer of the wheelbarrow type.

**DOBBINS MANUFACTURING CO., No. St. Paul, Minn.**

## **SEED BAG TRIERS**

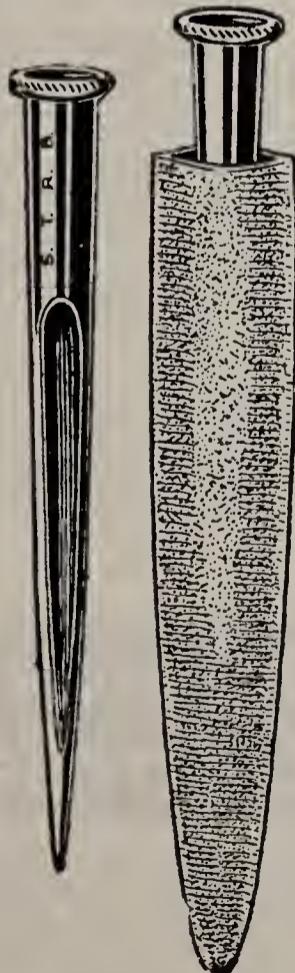
**QUICK, SAFE  
CONVENIENT**

Seed triers for quick, convenient drawing of samples without opening or tearing bag. Brass with steel point heavily nickel plated, with solid leather protector.

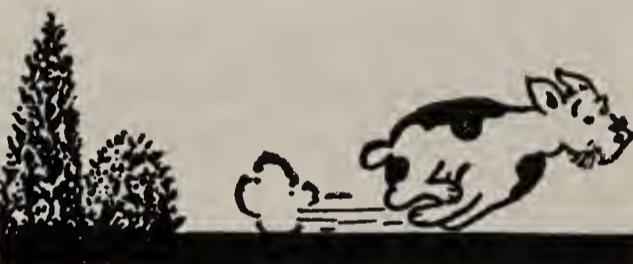
5 or 6 inches long,  
Price \$1.00 each,  
\$10.50 per doz.

9 in. long, with  
metal shield,  
Price \$2.00 each.

12 in. long, with  
metal shield,  
Price \$3.00 each.



**SEED TRADE REPORTING BUREAU  
325 W. Huron St. CHICAGO, ILL.**



## **"DOGZOFF"**

Copyright 1933

*A low priced—  
quick selling item*

that has become very popular in the seed trade and dealers are realizing an unusually good profit.

**DOGZOFF**—The only lasting spray that keeps dogs, cats, rabbits, moles, mice and varmints from places not wanted. Your customers need it. Sells fast. Long profit. Be sure to stock it this year. Write for dealers' prices.

**Bohlender  
PLANT CHEMICALS, INC.  
TIPPECANOE CITY, OHIO**

Colmery & Post, 250 S. Broad St., Philadelphia, Pa., Distributors for New England and Middle Atlantic States.

## SPRAYERS AND SPRAY MATERIALS—Continued

## Fly Repellents—Continued

**Wilson, Inc., Andrew**  
Springfield, N. J.  
(See Adv. on Page 145)

## FORMALDEHYDE DUST

**Rohm & Haas Co.**  
Philadelphia, Pa.  
(See Adv. on Page 145)

## FUMIGANTS

American Cyanamid & Chem. Co.  
New York City, N. Y.  
American Grain Fumigant Co.  
Minneapolis, Minn.  
California Spray-Chem. Corp.  
Berkeley, Cal.  
**Douglas Chemical & Supply Co.**  
Kansas City, Mo.  
(See Adv. on Page 143)  
Electric Sprayit Co.  
South Bend, Ind.  
Gateway Chemical Co., Inc.  
Kansas City, Mo.  
**Good, Inc., James**  
Philadelphia, Pa.  
(See Adv. on Page 147)  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)

**Grasselli Chemical Co., The**  
(Cleveland, Ohio)  
(See Adv. on Second Cover)  
**Hammond Paint & Chem. Co.**

Beacon, N. Y.  
(See Adv. on Page 143)  
Innis, Spieden & Co. (Seed)  
New York, N. Y.  
Interstate Chem. Co.  
Jersey City, N. J.  
LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
Liquid Carbonic Co.  
Chicago, Ill.  
Merck & Co., Inc.  
Rahway, N. J.  
Nicotine Mfg. Co.  
Henderson, Ky.  
**Tobacco By-Products & Chemical Corp.**  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)

Uniform Products Co.  
New York, N. Y.  
**Wilson, Inc., Andrew**  
Springfield, N. J.  
(See Adv. on Page 145)

## FUNGICIDES

**Acme White Lead & Color Works**  
Detroit, Mich.  
(See Adv. on Page 153)  
**American Agricultural Chemical Co.**  
New York, N. Y.  
**American Cyanamid & Chem. Co.**  
New York City, N. Y.  
Ansbacher Siegle Corp.  
New York, N. Y.  
Ansul Chemical Co.  
Marinette, Wis.  
Aphine Mfg. Co.  
Madison, N. J.

**Bayer-Semesan Co., Inc. (Disinfectants)**  
Wilmington, Del.  
**California Spray-Chem. Corp.**  
Berkeley, Calif.  
**Carbolineum Wood Preserving Co.**  
Milwaukee, Wis.  
**Chipman Chem. Co., Inc.**  
Bound Brook, N. J.  
**Electric Sprayit Co.**  
South Bend, Ind.  
**General Chemical Co.**  
New York, N. Y.  
**Good, Inc., James**  
Philadelphia, Pa.  
(See Adv. on Page 147)  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)  
**Grasselli Chemical Co., The**  
Cleveland, Ohio  
(See Adv. on Second Cover)  
**Hammond Paint & Chemical Works**  
Beacon, N. Y.  
(See Adv. on Page 143)  
Interstate Chemical Co.  
Jersey City, N. J.  
**Kiger Chemical Co. (Disinfectants)**  
Bowling Green, Ohio  
Mallinckrodt Chem. Works  
St. Louis, Mo.  
**Mechling Bros. Chemical Co.**  
Camden, N. J.  
(See Adv. on Page 121)  
**Merck & Co., Inc.**  
Rahway, N. J.  
**Pratt Co., B. G.**  
New York City, N. Y.  
Rex Research Corp.  
Toledo, Ohio  
**Rohm & Haas Co., Inc.**  
Philadelphia, Pa.  
(See Adv. on Page 145)  
**Rose Mfg. Co.**  
Philadelphia, Pa.  
**Sherwin-Williams Co.**  
Cleveland, Ohio  
**Stumpp & Walter Co.**  
New York City, N. Y.  
**Wilson, Inc., Andrew**  
Springfield, N. J.  
(See Adv. on Page 145)

## INSECTICIDES—ANIMAL

**Antrol Laboratories**  
Los Angeles, Calif.  
**Burrell-Dugger**  
Indianapolis, Ind.  
**Carbola Chemical Co.**  
Natural Bridge, N. Y.  
**Carbolineum Wood Preserving Co.**  
Milwaukee, Wis.  
**C-A Wood Preserver Co.**  
St. Louis, Mo.  
(See Adv. on Page 155)  
**Chipman Chem. Co., Inc.**  
Bound Brook, N. J.  
**Conkey Co., G. E.**  
Cleveland, Ohio  
**General Laboratories, Inc.**  
Philadelphia, Pa.  
**Germo Mfg. Co.**  
St. Louis, Mo.

**A garden is a lovely spot**

**If Harmful Insects are Controlled**

"Black Leaf 40" guards flowers, shrubbery, vegetables, and fruits against aphids and other insects. Its double killing action—by contact and by fumes gives it an extra advantage. Acts quickly—no waiting for results. Because it "fumes off" (evaporates) it is always safe—leaves no harmful residues.

The many uses for "Black Leaf 40" make it easy to sell—quick to repeat.

**TOBACCO BY-PRODUCTS & CHEMICAL CORPORATION,  
INCORPORATED - - - LOUISVILLE, KENTUCKY**

**"Black Leaf 40"**

# ANNIA GERM KILLS MOTHS BUGS WEEVIL WORMS

**Equally Effective on Bagged  
or Bulk Seeds**

*Ask for Our New Low  
Prices to Seed Trade*

**DOUGLAS CHEMICAL  
& SUPPLY COMPANY**

INCORPORATED 1916

825-827 South West Boulevard  
**KANSAS CITY, MO.**

Sole Manufacturers and Direct Distributors

## GET YOUR SHARE

*of*

## MILLIONS OF DOLLARS SPENT IN THE SEED TRADE

*by*

## 12,500,000 CONSUMER BUYERS

*by*

## ADVERTISING IN SEED WORLD

# Quick Sure Profits

FOR 60 Years, farmers, gardeners and florists have asked for HAMMOND Products. They are nationally advertised and attractively packaged. The profit margin is unusually generous. We offer 100% jobber and dealer protection, also sales cooperation that helps move merchandise.

## HAMMOND SALES LEADERS

*For Counter and Shelf*

### SLUG SHOT The Safe Dust

A combination Insecticide and Fungicide used for more than 50 years for the control of Chewing Insects. A sure selling item.

### LIQUID SLUG SHOT

The Ultimate Plant Spray

Contains "Stabilized" Rotenone (patent applied for) and Pyrethrum, combined with effective fungicide.

### GRAPE AND ROSE DUST

The Perfect Fungicide

Prevents and controls Powdery Mildew and Black Spot on Roses, also other fungous diseases.

### ANT GAS

Sure Death to Ants

A teaspoonful of Ant Gas poured on any ant hill kills all the ants immediately.

### THRIP JUICE

An Efficient Contact Spray

A concentrated nicotine spray that goes farther, costs less, has higher percentage of kill and lasts longer than most nicotine combinations.

### DOG SKAT

Dog Repellent

A tube will keep dogs away from shrub, tree or flowers. Lasts an entire season.

### PAINTS & PUTTIES

for Greenhouse Use

A complete line, including "Old English" Liquid Putty, the original plastic.

Get started right. Send for full details of our 1935 Sales Program.

**HAMMOND'S**

HAMMOND PAINT & CHEMICAL CO.

*Estab. 1875*



50 Ferry St.,

Beacon, New York

**SPRAYERS AND SPRAY MATERIALS—Continued****Insecticides—Animal—Continued****Goulard & Olena, Inc.**

New York, N. Y.

(See Adv. on Page 145)

**Kalo Company**

Quincy, Ill.

(See Adv. on Page 135)

**LeGear Medicine Co., Dr. L. D.**  
St. Louis, Mo.**Mallinckrodt Chemical Works**  
St. Louis, Mo.**Mechling Bros. Chemical Co.**

Camden, N. J.

(See Adv. on Page 121)

**Merck & Co., Inc.**

Rahway, N. J.

**Rotenone Products Co., Inc.**

East Orange, N. J.

**Shepard Laboratories**

Council Bluffs, Iowa

**Tobacco By-Products & Chem. Corp., Inc.**

Louisville, Ky.

(Black Leaf 40)

(See Adv. on Pages 140-142-157-159)

**Wilson, Inc., Andrew**

Springfield, N. J.

(See Adv. on Page 145)

**INSECTICIDES—PLANT****Acme White Lead & Color Works**  
Detroit, Mich.

(See Adv. on Page 153)

**American Color & Chemical Co.**  
Boston, Mass.**American Cyanamid & Chem. Co.**  
New York City, N. Y.**Ansbacher Siegle Corp.**

New York City, N. Y.

**Ansul Chemical Co.**

Marinette, Wis.

**Calif. Spray-Chemical Corp.**  
Berkeley, Calif.**Chipman Chemical Co., Inc.**

Bound Brook, N. J.

**Cooper & Nephews, Wm.**

Chicago, Ill.

**Douglas Chemical & Supply Co.**  
Kansas City, Mo.

(See Adv. on Page 143)

**Dow Chemical Co.**

Midland, Mich.

**Electric Sprayit Co.**

South Bend, Ind.

**General Chemical Co.**

New York City, N. Y.

**Good, Inc., James**

Philadelphia, Pa.

(See Adv. on Page 147)

**Goulard & Olena, Inc.**

New York, N. Y.

(See Adv. on Page 145)

**Grasselli Chemical Co., The**  
Cleveland, Ohio

(See Adv. on Second Cover)

**Half Moon Mfg. & Trading Co.**

New York, N. Y.

**Hammond Paint & Chemical Works**

Beacon, N. Y.

(See Adv. on Page 143)

**Hitox Products Corp.**

New York, N. Y.

(See Adv. below)

**Interstate Chemical Co.**

Jersey City, N. J.

**Kalo Company**

Quincy, Ill.

(See Adv. on Page 135)

**Kay-Fries Chemicals, Inc.**

New York, N. Y.

**Mallinckrodt Chemical Works**

St. Louis, Mo.

**McCormick & Co., Inc.**

Baltimore, Md.

(See Adv. on Page 145)

**McLaughlin, Gormley King Co.**

Minneapolis, Minn.

**Mechling Bros. Chemical Co.**

Camden, N. J.

(See Adv. on Page 121)

**Niagara Sprayer & Chemical Co., Inc.**

Middleport, N. Y.

**Penick & Co., S. B.**

New York, N. Y.

(See Adv. on Page 121)

**Reade, Inc., Morris B.**

Belleville, N. J.

**Rohm & Haas Co.**

Philadelphia, Pa.

(See Adv. on Page 145)

**Rose Mfg. Co.**

Philadelphia, Pa.

**Rotenone Products Co., Inc.**

East Orange, N. J.

**Shepard Laboratories**

Council Bluffs, Iowa

**Tanglefoot Company**

Grand Rapids, Mich.

**Tobacco By-Products & Chemical Corp.**

Inc. (Black Leaf 40)

Louisville, Ky.

(See Adv. on Pages 140-142-157-159)

**Wilson, Inc., Andrew**

Springfield, N. J.

(See Adv. on Page 145)

**MOTH KILLERS****Douglas Chemical & Supply Co.**

Kansas City, Mo.

(See Adv. on Page 143)

**Good, Inc., James**

Philadelphia, Pa.

(See Adv. on Page 147)

**Goulard & Olena, Inc.**

New York, N. Y.

(See Adv. on Page 145)

**Mallinckrodt Chemical Works**

St. Louis, Mo.

**Mechling Bros. Chemical Co.**

Camden, N. J.

(See Adv. on Page 121)

**PEST EXTERMINATORS**

(Rats, Etc.)

**Acme White Lead & Color Works (Ant)**

Detroit, Mich.

(See Adv. on Page 153)

**American Cyanamid & Chem. Co.**

New York City, N. Y.

**Bohlender Plant Chemicals, Inc.**

(Mole, Rat)

Tippecanoe City, Ohio

(See Adv. on Page 141)

**Carbolineum Wood Preserving Co.**

Milwaukee, Wis.

The new insecticide that has become so popular in the seed trade is the most efficient and economical on the market. **HITOX** is packed in the following sizes: 1 ounce bottle, 35c; 1 pint can, \$1.75; 1 quart can, \$3.00; 1 gallon can, \$9.00. Write for dealer discounts and sample.

**HITOX PRODUCTS CORP.**

305 W. 26th St.

New York, N. Y.

# Wilson's

is the name that is recognized as representing the highest quality in Horticultural products. There are Wilson products for every season and purpose.

## Wilson's O.K. PLANT SPRAY

Powerful, yet safe, nicotine insecticide for garden and greenhouse use.

## Wilson's SCALE-O

Superior dormant spray for Ornamentals, Fruit and Shade Trees.

## Wilson's WEED KILLER

Clean, odorless, Super Strength solution for destroying undesirable plant growth.

*Literature and prices on request.*

*Andrew Wilson*  
INC.

SPRINGFIELD

NEW JERSEY



## RED ARROW GARDEN SPRAY

*points the way to PROFITS!*

- Because it is the preference of most home gardeners and highly profitable to you.
- Colorful window displays, counter cards, descriptive leaflets, spray charts and other "sales aids" are furnished free upon request.
- Why not concentrate your purchases of garden insecticides in Red Arrow? It will require less investment on your part and assure a more rapid turnover. Think it over!

McCORMICK & COMPANY, INC.  
BALTIMORE, MD.

## BULK G&O PACKAGE



"The Best packed and priced line in America." Over 100 manufactured items comprising

HOUSEHOLD INSECTICIDES

GARDEN INSECTICIDES

DISINFECTANTS

DEODORANTS

FERTILIZERS

WEED KILLERS (Liquid—Dry)

SHEEP MANURE      BONE MEAL

AND

THE FAMOUS G&O SPRAYER

We cooperate with THE SEED CATALOGUE TRADE.

GOULARD & OLENA, INC.

CHEMICAL MANUFACTURERS

140 LIBERTY ST.

NEW YORK, N.Y.

## DEPENDABLE INSECTICIDES and FUNGICIDES



**Cuproicide**—a specially prepared form of red copper oxide, widely recommended for use in seed treatment for prevention of damping-off.

**AAZ Special Zinc Oxide**—a new type of zinc oxide for use where this type of fungicide is recommended and preferred.

**Form-O-Fume**—a uniform formaldehyde dust.

**Lethane 420**—an unusually effective contact insecticide—kills mealy bug, red spider, midge, thrips, aphid, etc.

Full information and price lists on request.

*Manufactured by the*

**RÖHM & HAAS CO., Inc.**

222 West Washington Square  
Philadelphia • Pennsylvania

## SPRAYERS AND SPRAY MATERIALS—Continued

## Pest Exterminators—Continued

Carco Spray Co., Inc.  
Tacoma, Wash.  
Chipman Chem. Co., Inc.  
Bound Brook, N. J.  
**Douglas Chemical & Supply Co.**  
Kansas City, Mo.  
(See Adv. on Page 143)  
General Laboratories, Inc.  
Philadelphia, Pa.  
Germo Mfg. Co.  
St. Louis, Mo.  
Felix Girard Co., Inc. (Rat)  
Minneapolis, Minn.  
**Good, Inc., Jas.**  
Philadelphia, Pa.  
(See Adv. on Page 147)  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)  
Green, E. A. (Mole)  
Beverly, N. J.  
**Grasselli Chemical Co., The**  
Cleveland, Ohio  
(See Adv. on Second Cover)  
Jones Products Co. (Ant)  
Milwaukee, Wis.  
**K-R-O Co., The**  
Springfield, Ohio  
LeGear Medicine Co. Dr. L. D.  
St. Louis, Mo.  
Mallinckrodt Chemical Works  
St. Louis, Mo.  
McAleer Co., E. J. (Beetle Traps)  
Philadelphia, Pa.  
McCloud & Co., W. B.  
Chicago, Ill.  
Merck & Co., Inc.  
Rahway, N. J.  
Moore Son's Co., B. J. (Rat Bombs)  
Waterville, N. Y.  
Pasteur Laboratories (Rat)  
New York, N. Y.  
Peerless Auto Trap Co.  
Chicago, Ill.  
Reardon Laboratories, Inc., W. G.  
Port Chester, N. Y.  
Rex Research Corp.  
Toledo, Ohio  
Senoret Chemical Co. (Ant)  
St. Louis, Mo.  
Soilicide Laboratories (Ant Traps)  
Upper Montclair, N. J.  
Tanglefoot Co., The  
Grand Rapids, Mich.  
V. & M. Products Co.  
Galesburg, Mich.  
Virus Limited, Inc.  
New York City, N. Y.  
**Wilson, Inc., Andrew**  
Springfield, N. J.  
(See Adv. on Page 145)  
Zoro Company (Ant)  
Chicago, Ill.

## RODENT REPELLENTS

Castle Chemical Co.  
Castle Rock, Minn.  
**Hammond Paint & Chem. Co.**  
Beacon, N. Y.  
(See Adv. on Page 143)

## SEED DISINFECTANTS

Ansul Chemical Co.  
Marinette, Wis.  
Bayer-Semesan Co., Inc.  
Wilmington, Del.  
Bowker Chemical Co.  
New York, N. Y.  
Castle Chemical Co.  
Castle Rock, Minn.  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)  
Kiger Chemical Co.  
Bowling Green, Ohio  
Mallinckrodt Chem. Works  
St. Louis, Mo.

Merck & Co., Inc.  
Rahway, N. J.  
**Rohm & Haas Co.**  
Philadelphia, Pa.  
(See Adv. on Page 145)

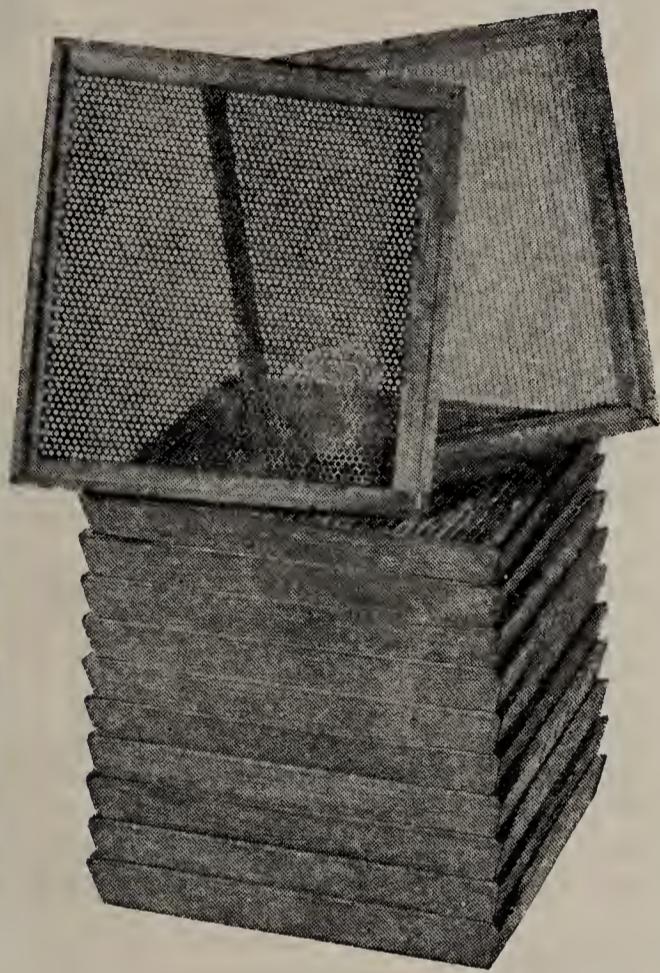
## SPRAYERS

AcmeLine Mfg. Co.  
Traverse City, Mich.  
Alliance Mfg. Co. The  
Alliance, Ohio  
Armstrong Electric & Mfg. Corp.  
Huntington, W. Va.  
Barnes Mfg. Co.  
Mansfield, Ohio  
Bean Spray Pump Co.  
Lansing, Mich.  
Brower Mfg. Co.  
Quincy, Ill.  
Brown Co., E. C.  
Rochester, N. Y.  
**Campbell-Hausfeld Co., The**  
Harrison, Ohio  
(See Adv. on Page 147)  
Chipman Chem. Co., Inc.  
Bound Brook, N. J.  
Crown Mfg. Co.  
Phelps, N. Y.  
Deming Co.  
Salem, Ohio  
**Dobbins Mfg. Co.**  
North St. Paul, Minn.  
(See Adv. on Page 141)  
Electric Sprayit Co.  
South Bend, Ind.  
**Ellis-Keystone Agricultural Works**  
Pottstown, Pa.  
(See Adv. on Page 125)  
Eureka Mower Co.  
Utica, N. Y.  
Feeny Mfg. Co.  
Muncie, Ind.  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)  
Hamilton, W. L.  
Bangor, Mich.  
Hardie Mfg. Co.  
Hudson, Mich.  
Hayes Pump & Planter Co.  
Galva, Ill.  
**Hoeft & Co., Inc.**  
North Chicago, Ill.  
(See Adv. on Page 155)  
**Hudson Mfg. Co., H. D.**  
Chicago, Ill.  
(See Adv. on Page 119)  
Judd & Leland  
Clifton Springs, N. Y.  
Lirio, P. E.  
Vineland, N. J.  
Lowell Sprayer Co.  
Lowell, Mich.  
Myers & Bro. Co., The F. E.  
Ashland, Ohio  
Niagara Sprayer & Chemical Co., Inc.  
Middleport, N. Y.  
Peerless Dust Gun Co.  
Cleveland, Ohio  
Pugsley & Morrison  
Yuba City, Calif.  
Smith & Co., Inc., D. B.  
Utica, N. Y.  
**Wilson, Inc., Andrew**  
Springfield, N. J.  
(See Adv. on Page 145)

## WEED DESTROYERS

Chicago Weed Killer Co.  
Chicago, Ill.  
Chipman Chem. Co., Inc.  
Bound Brook, N. J.  
**Good, Inc., James**  
Philadelphia, Pa.  
(See Adv. on Page 147)  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)  
**Grasselli Chemical Co., The**  
Cleveland, Ohio  
(See Adv. on Second Cover)

# Seed Sieves



For determining dockage the following can be used to advantage. Sieves are 8" x 8".

#### TIMOTHY

1/25 zinc top  
6x32 wire mesh bottom.

#### ALSIKE

1/20 zinc top.  
1/18 zinc top.  
26x26 wire mesh bottom.  
6x32 wire mesh bottom.

#### RED CLOVER

1/15 zinc top.  
6x24 wire mesh.  
4x24 wire mesh.

#### ALFALFA

1/15 zinc top.  
1/19 zinc top.  
4x26 wire mesh.

#### SWEET CLOVER

7/64 zinc top for rough dockage.  
1/15 zinc top for removing unhulled seed.  
1/16 zinc top to remove unhulled seed.  
4x24 wire mesh bottom for common sweet.  
4x26 wire mesh bottom for dwarf sweet.

## *Don't Buy DIRT!*

It is not necessary to buy weed seeds and inert matter when you have a set of our seed dockage sieves. You can determine for yourself the percentage of pure seed.

We can furnish an accurate set of sieves for each variety of field seed.

*Write for prices*

**SEED TRADE  
REPORTING BUREAU**  
325 W. Huron St. Chicago

**ALERT SEEDSMEN** find these items quick repeaters with nice profits

# WEEDEX

The SCIENTIFIC CHEMICAL WEED-KILLER

JUST SPRINKLE LIQUID, KILLS WEEDS CHEAPLY

Packed in qt. and gal. cans.  
5-10-30 and 50 gal. drums.

## KEYSTONE FISH-OIL SPRAY-SOAPS

Three widely used, old favorites with successful gardeners and growers

"No. 1"—SODA SOAP, sometimes called Whale-oil soap, for Aphis, Thrip & Scale on porch and garden plants.

"No. 3"—POTASH SOAP, quickly soluble in cold water. Most effective spreader and liberator for Nicotine sprays.

"No. 9"—ROSIN SOAP, quickly soluble, positive sticker and spreader for Bordeaux sprays on grape, plums, tomatoes and all smooth skin fruit. Saves usual heavy "run-off" waste and increases killing power.

Packed in 1, 5 and 10 lb. tins, 25, 50, 100, 250 lb. and 450 lb. drums.

Descriptive Folders and Catalog Cuts Sent on Request.

## JAMES GOOD, INC.

2200 Martha Street Philadelphia, U. S. A.



## Consumer Advertising

is creating a large demand

FOR

## PARAGON SPRAYERS

"Guaranteed Never to Clog"

Tie up to this campaign. Stock the Paragon Line and get your share of the high grade sprayer business. Paragon prices are right. Dealer discounts are liberal.

*Write for Catalog and Price List*

**The CAMPBELL-HAUSFELD CO.**  
HARRISON OHIO

## SPRAYERS AND SPRAY MATERIALS—Concluded

## Weed Destroyers—Continued

**Hammond Paint & Chemical Works**  
**Beacon, N. Y.**  
 (See Adv. on Page 143)  
**Interstate Chem. Co.**  
 Jersey City, N. J.

**Reade Mfg. Co.**  
 Jersey City, N. J.  
**Root Mfg. Co.**  
 Cleveland, Ohio  
**Wilson, Inc., Andrew**  
**Springfield, N. J.**  
 (See Adv. on Page 145)

## PETS AND PET SUPPLIES

## BIRDS

Bishop, Inc., Henry  
 Baltimore, Md.  
**H. J. Fletcher Co.**  
 Philadelphia, Pa.  
**Flower's Tropical Bird Farms**  
 Van Nuys, Cal.  
**Haller's Pet Shop**  
 St. Louis, Mo.  
**Mussog's Bird Store**  
 Philadelphia, Pa.  
**National Pet Shops**  
 St. Louis, Mo.  
**Nollen & Son, H. A.**  
 Dubois, Pa.  
**Odenwald Bird Co.**  
 New York, N. Y.  
**Putnam's—Gold and Tropical Fish**  
 Buffalo, N. Y.  
**Robison, Ansel W.**  
 San Francisco, Cal.  
**Southern's Bird Farm**  
 Clifton Hill, Mo.  
**"Steins" Canary Plant**  
 Philadelphia, Pa.  
**Vahle, E. C.**  
 Chicago, Ill.

## BIRD BATHS

**Brush Pottery Co.**  
 Zanesville, Ohio  
**Louisville Pottery Co., Inc.**  
 Louisville, Ky.  
**Silvertone Co.**  
 New York, N. Y.  
**Smith Wire & Iron Works, F. P.**  
 Chicago, Ill.  
**Western Stoneware Co.**  
 Monmouth, Ill.  
**Zane Pottery Co.**  
 South Zanesville, Ohio

## BIRD CAGES

**Bishop, Inc., Henry**  
 Baltimore, Md.  
**Friedlaener, Paul N.**  
 New York, N. Y.  
**Hendryx Co., Andrew C.**  
 New Haven, Conn.  
**Mussog's Bird Store**  
 Philadelphia, Pa.  
**National Pet Shops**  
 St. Louis, Mo.  
**Nollen & Son, H. A.**  
 Dubois, Pa.  
**Putnam's—Gold and Tropical Fish**  
 Buffalo, N. Y.  
**Raedlein Basket Co.**  
 Chicago, Ill.  
**Silvertone Co.**  
 New York, N. Y.  
**"Steins" Canary Plant**  
 Philadelphia, Pa.  
**Vahle, E. C.**  
 Chicago, Ill.

## BIRD CAGE STANDS—METAL

**Bishop, Inc., Henry**  
 Baltimore, Md.  
**Hendryx Co., Andrew B.**  
 New Haven, Conn.  
**Mussog's Bird Store**  
 Philadelphia, Pa.  
**Putnam's—Gold and Tropical Fish**  
 Buffalo, N. Y.  
**Schoemann & Mayer, Inc.**  
 New York City, N. Y.

**Vahle, E. C.**  
 Chicago, Ill.

## BIRD HOUSES

**Batcheller Associates, Fred E.**  
 Salem, Mass.  
**Bishop, Inc., Henry**  
 Baltimore, Md.  
**Bishop, Welles L.**  
 Meriden, Conn.  
**Dodson, Inc., Jos. H.**  
 Kankakee, Ill.  
**Express Body Corp.**  
 Crystal Lake, Ill.  
**Homecraft Specialty Mfg. Co.**  
 Mattoon, Ill.  
**National Pet Shops**  
 St. Louis, Mo.  
**Putnam's—Gold and Tropical Fish**  
 Buffalo, N. Y.  
**Rieber Bird Homes**  
 West Webster, N. Y.  
**Root Co. of Iowa, A. I.**  
 Council Bluffs, Iowa  
**Schaad & Son, E. J.**  
 Merrill, Wis.  
**Western Stoneware Co.**  
 Monmouth, Ill.  
**Woodcraft Co., The**  
 Dalton, N. Y.  
**Yoho & Hooker**  
 Youngstown, Ohio

## BIRD SEED AND SUPPLIES

**American Bird Products Co.**  
 Chicago, Ill.  
**Battle Creek Dog Food Co.**  
 Battle Creek, Mich.  
 (See Adv. on Page 149)  
**Bishop, Inc., Henry**  
 Baltimore, Md.  
**Blamberg Bros., Inc.**  
 Baltimore, Md.  
 (See Adv. on Page 23)  
**Dickinson Co., Albert**  
 Chicago, Ill.  
 (See Adv. on Page 132)  
**Duryea Seed Co., Inc.**  
 New York, N. Y.  
 (See Adv. on Page 63)  
**Exner Sand & Gravel Co.**  
 New York, N. Y.  
**Franks Bird Store, Inc. (Song Restorer)**  
 New York, N. Y.  
**Haller's Pet Shop**  
 St. Louis, Mo.  
**Heger Products Co.**  
 St. Paul, Minn.  
**Hinton & Co., Inc.**  
 New York, N. Y.  
**Horton Co., F. T.**  
 Hoboken, N. J.  
**Johnson, Inc., J. Oliver**  
 Chicago, Ill.  
**Justrite Co., The**  
 Milwaukee, Wis.  
**Magnesia Products Co.**  
 Milwaukee, Wis.  
**Mangelsdorf & Bro., Ed. F.**  
 St. Louis, Mo.  
 (See Adv. on Page 13)  
**Mussog's Bird Store**  
 Philadelphia, Pa.  
**National Pet Shops**  
 St. Louis, Mo.  
**Nature Friend, The**  
 New York, N. Y.  
**Nollen & Son, H. A.**  
 Dubois, Pa.



## GOLDFISH • TROPICAL FISH WATER LILIES

AQUATIC PLANTS — SCAVENGERS — FISH FOODS  
AQUARIUM ACCESSORIES

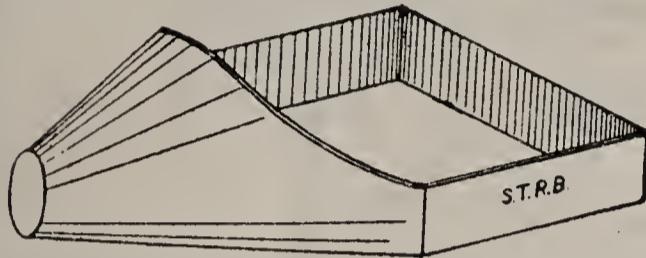
*"PACIFIC" Products Are Your Protection. Write for Catalog*

### PACIFIC GOLDFISH FARM

Largest Breeders and Distributors of Fancy Goldfish in Western America

P. O. BOX 57, DEPT. S

WESTMINSTER, CALIF.



### SEED AND GRAIN SAMPLE PANS

For containing grain or seed after sampling. Advantageous in making analyses and for display. Seamless Wellsville steel—dark blue and non-glaring.

No. 31—12x16x2 in.—3 qts. wheat capacity. Price each, \$1.50; half dozen, \$8.50. Aluminum, same price.

No. 32—8½x12x1½ in.—1½ qts. wheat capacity. Price each, \$1.25; half dozen, \$7.00.

### SEED TRADE REPORTING BUREAU

325 W. Huron Street  
CHICAGO, ILL.

## MILLER'S DOG · BIRD & FISH FOODS

### Year Around Profit Line

Seed dealers need a fill in line for off season months. Miller's high profit "Battle Creek Health Foods for Pets" are steady money makers. Complete samples of Dog, Bird, and Fish Foods will be sent on request.

*Inquire about our dealer plan.*

### BATTLE CREEK DOG FOOD COMPANY

BATTLE CREEK - - MICHIGAN

# READ SEED WORLD

*News and Advertising*

for all the latest developments in the Seed Trade Field

**PETS AND PET SUPPLIES—Concluded****Bird Seed and Supplies—Continued**

Peerless Mfg. Co.  
Detroit, Mich.  
Pet Foods Co. of America  
New York, N. Y.  
Philadelphia Bird Food Co.  
Philadelphia, Pa.  
**Philadelphia Seed Co.**  
Philadelphia, Pa.  
(See Adv. on Page 26)  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.  
**Radway-McCullough Seeds, Inc. (Bird Seed)**  
New York City, N. Y.  
(See Adv. on Page 63)  
**Scarlett & Co., Wm. G.**  
Baltimore, Md.  
(See Adv. on Page 40)  
Southern's Bird Farm  
Clifton Hill, Mo.  
Spratt's Patent, Ltd.  
Newark, N. J.  
**Tibor, Kemeny**  
Budapest, Hungary  
(See Adv. on Page 69)  
Von Damm, F. H.—Bird Food  
Brooklyn, N. Y.

**DOG FOODS AND SUPPLIES**

**Battle Creek Dog Food Co.**  
Battle Creek, Mich.  
(See Adv. on Page 149)  
Beck Bros. (Dog Collars, etc.)  
Herrick, Ill.  
Brown Co., Geo. C.  
Memphis, Tenn.  
Champion Animal Food Co.  
Minneapolis, Minn.  
Chappell Bros., Inc.  
Rockford, Ill.  
Glover Co., Inc., H. Clay  
New York, N. Y.  
**Good, Inc., James**  
Philadelphia, Pa.  
(See Adv. on Page 147)  
Heger Products Co.  
St. Paul, Minn.  
Imperial Biscuit Co.  
Sackets Harbor, N. Y.  
Justrite Co.  
Milwaukee, Wis.  
Kennel Food Supply Co.  
Fairfield, Conn.  
Le Gear Medicine Co., Dr. L. D. (Remedies)  
St. Louis, Mo.  
National Pet Shops  
St. Louis, Mo.  
Nowak Milling Co.  
Hammond, Ind.  
Old Trusty Dog Food Co.  
Needham Heights, Mass.  
Perfection Foods Co.  
Battle Creek, Mich.  
**Philadelphia Seed Co.**  
Philadelphia, Pa.  
(See Adv. on Page 26)  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.

Richmond, Abattoir  
Richmond, Va.  
Rose & Co., G. P.  
Nashville, Tenn.  
Scott Co., I. W.  
Pittsburgh, Pa.  
Simpson Products Co.  
Terre Haute, Ind.  
Spratt's Patent, Ltd.  
Newark, N. J.  
Wapler Co., Nicholas  
New York, N. Y.

**DOG REPELLENTS**

(See Page 140)

**GOLD FISH AND SUPPLIES**

American Bird Products Co.  
Chicago, Ill.  
Ashbourne Goldfish & Supply Co.  
Burlington, Iowa  
**Auburndale Goldfish Co.**  
Chicago, Ill.  
(See Adv. below)  
**Battle Creek Dog Food Co.**  
Battle Creek, Mich.  
(See Adv. on Page 149)  
Bruce Goldfish Fisheries  
Thornburg, Iowa  
Crescent Fish Farm  
New Orleans, La.  
Grassyfork Fisheries, Inc. (Shubunkins)  
Martinsville, Ind.  
Gray, Roger P. (Tropical Fish)  
Ojus, Fla.  
Japanese Goldfish Hatchery Co.  
North Branch, N. J.  
Justrite Co., The  
Milwaukee, Wis.  
Lakeview Ponds, The  
Mt. Airy, Cincinnati, Ohio  
Loveland Goldfish Farms  
Loveland, Ohio  
Mt. Parnell Fisheries  
Mercersburg, Pa.  
Mussog's Bird Store  
Philadelphia, Pa.  
National Pet Shops  
St. Louis, Mo.  
**Pacific Goldfish Farm**  
Westminster, Cal.  
(See Adv. on Page 149)  
Pearcy Goldfish Co.  
Martinsville, Ind.  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.  
Spratt's Patent, Ltd. (Supplies)  
Newark, N. J.  
Spring Lake Fishery  
Waldron, Ind.  
Tamms Silica Co. (Pebbles)  
Chicago, Ill.  
Wapler Co., Nicholas  
New York, N. Y.  
Wells Glass Co. (Colored Glass Chips)  
Kokomo, Ind.  
Woodford Water Gardens  
Van Nuys, Calif.



SEND FOR  
WHOLESALE CATALOG

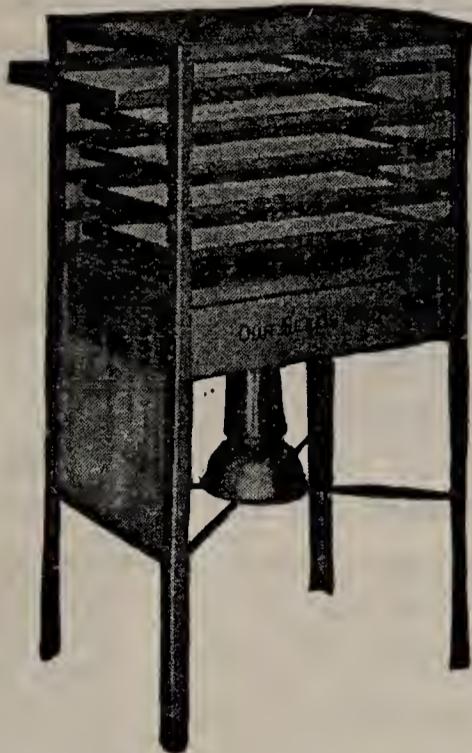
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CHICAGO, ILL.

**GOLDFISH**  
BABY TURTLES, LILIES  
AQUATIC PLANTS, SCAVENGERS  
AND ACCESSORIES  
Jobbers of  
AQUARIUMS & SUPPLIES  
**AUBURNDALE GOLDFISH CO.**

# Seed Testing Equipment



## Sho-Gro Germinators

are Rapid—Reliable—Reasonable. Durably made with glass sides—it is efficient, accurate and makes an attractive display of sprouting seeds that will interest your customers. Blotters are kept moist by evaporation. Has 5 trays 10 x 15 in. Electric or lamp heat. Price with oil heat, \$22.00. Electric (100 or 220 volts), \$28.00. Shipping weight, 95 lbs.

## The New Improved Boerner Seed Sampler

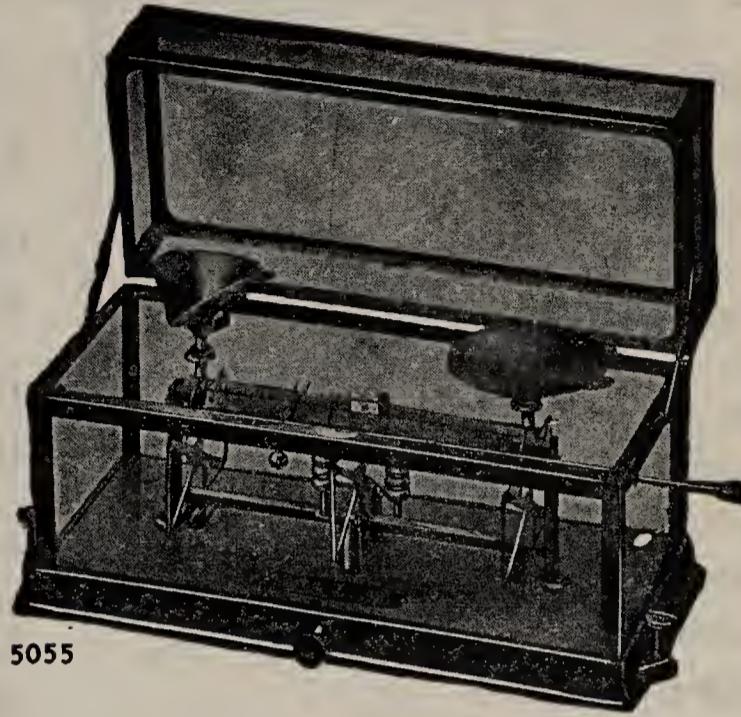
Demonstrations have proved that in order to reduce the size of a representative sample so that a careful analysis may be made some mechanical method must be employed to get accurate results. Several important changes were made to add to the usefulness of this sampler.



Around the base of the cone are 44 pockets or openings. The seed falling down the sides of the cone is cut into 44 separate streams, alternating into two streams. The top is removable for cleaning and inspection. The entire bottom section is removable to facilitate cleaning if necessary. The sample pans are more satisfactory and easier to use. The many new improvements add great efficiency to this sampler. Sticking of seeds is entirely eliminated.

This new type used by the New York State Seed Testing Laboratory at Geneva and recommended by the Association of Official Seed Analysts of North America.

Made of brass and copper with dull nickel finish. Height 15 $\frac{1}{8}$  inches. Diameter at dividing base 6 inches. Net weight 5 lbs. Shipping weight 18 lbs. Price \$37.50 F.O.B. Chicago

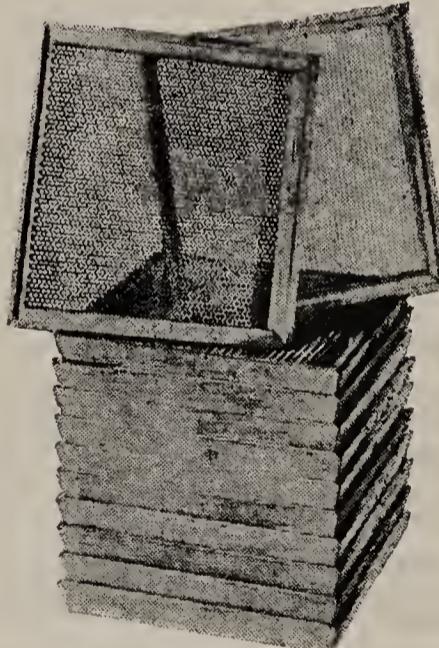


5055

## Torsion Scale No. 5055

A fine balance for delicate weighing and the analysis of seed and grain. Capacity 120 grams, sensitiveness 2 milligrams. Rider beam 1 gram by .01 gram or if specified, 500 milligrams by 5 milligrams. Size 13 x 8 $\frac{1}{4}$  x 6 $\frac{1}{2}$  inches. Brass weighs in mahogany case 2-20 grams to 1 gram. Price, \$81.00.

## Seed Dockage Sieves



### For CLOVERS, TIMOTHY and other SEEDS of SIMILAR SIZES

These sieves are correctly made in every particular. The size of the perforations—the accuracy of the construction—the strength—material and workmanship are SEEDBURO quality throughout.

The complete set consists of 12 sieves and solid bottom pan, as follows:

Seven of the sieves have zinc bottoms, with round perforations in size—1/25, 1/20, 1/18, 1/15, 1/19, 7/64, 1/16. Five have woven wire mesh in sizes—6/32, 26/26, 6/24, 4/24, 4/26.

Price, \$9.00 for complete set.

*Write for full descriptive matter on all seed testing equipment*

SEED TRADE REPORTING BUREAU 325 W. Huron Street CHICAGO, ILL.

# POULTRY SECTION

## ITEMS ESSENTIAL TO A COMPLETE POULTRY SUPPLY LINE

- Animal Insecticides
- Animal Poultry Yeast
- Automatic Time Switches
- Batteries (Broilers and Poultry Fattening)
- Brood Coops (Metal and Wood)
- Brooder House Plans
- Brooder Stoves (Coal and Oil Burning)
- Brooders (Oil and Electric Heated)
- Brooders (Feather)
- Brooders (Storage)
- Burglar Alarms
- Buttermilk (Semi-Solid)
- Buttermilk (Dried)
- Caponizing Sets
- Charcoal
- Cod Liver Oil
- Coops
- Chick Boxes
- Crates
- Disinfectants
- Drinking Fountains (Metal and Earthenware, heated, unheated, Thermostat)
- Dry Milk
- Egg Carriers
- Eggs for Hatching
- Egg Cartons
- Egg Grading Scales
- Egg Preservatives
- Egg Scales
- Egg Testers
- Electric Fountain Heaters
- Feeders and Mash Hoppers (metal and wood)
- Fencing, Poultry Wire (small and large mesh)
- Glass Substitutes (to admit ultra-violet rays of sun)
- Grit Hoppers
- Grit (fine, medium, coarse; hard, sharp, cubical in shape)
- Heat Regulators
- Incubators (50 to 500 egg size, electric hot water, hot air)
- Leg Bands (Chick, growing stock and hen size)
- Lice Killers
- Meat Scraps
- Mite Killers
- Nest Eggs
- Nests (metal and trap)
- Oats Sprouters
- Oyster Shell (Reef Brand)
- Oyster Shell Hopper
- Peat Moss (Poultry House Litter)
- Poultry Books
- Poultry Feeds (Chick, growing stock, laying hens)
- Pullets, 12, 16 and 18 weeks old
- Poultry House Plans
- Poultry Punches (web and toe)
- Poultry Remedies
- Pedigree Egg Baskets
- Rat and Mice Killers
- Root, Vegetable, Bone and Clover Cutters
- Roosts—Vermin Proof
- Sprayers (Hand and Power)
- Scrapers for Dropping Boards
- Toe Pick Preventers
- Vaccines
- Ventilators
- Wafers, Thermostat
- Wing Tags

For Sources of Supply on these or other items not listed, Consult our  
**POULTRY SERVICE DEPARTMENT** which supplies information  
and advice without charge.

## RELIABLE BEAM SCALE



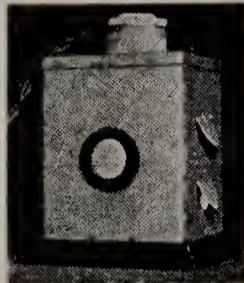
Guaranteed to  
Be  
Accurate

Grades All Eggs Weighing 16 to 32  
Ounces to the Dozen. Price \$1.50

Reliable  
Double  
Wafer  
Thermo-  
stat Made  
in 2, 3, 4,  
and 5  
Inch Sizes



Give Name of Incubator and Brooder  
When Ordering



### RELIABLE REFLECTO EGG CANDLER

Electrically Operated  
Standard Voltage 110  
Can Also Furnish for 32 or  
220 Voltage  
Can Be Attached to Light  
Socket  
Complete with Bulb, Cord  
and Sockets (110 V.),  
\$1.30

*Write for Our Catalog and Discounts*

**RELIABLE INCUBATOR & BROODER CO.,**  
BOX 60, QUINCY, ILLINOIS

## DON'T GUESS

on those incoming  
samples. Use a  
Magnifying Glass



Desk Size

The Magnifying  
Glasses illustrated here-  
with are especially  
adaptable for quick  
and efficient use in the  
examination of seeds.

The Desk Glass is of  
solid brass, the focus  
adjustment being made  
by screw threads. The  
lens is of correct power  
for close examination  
of seeds. Diameter of  
lens, 1 inch.



Pocket Size

The Pocket  
Glass is a very  
handy instru-  
ment, folding  
neatly in a  
hard rubber case. Diameter of lens, 1½ inches.

The case protects the lens from scratching and  
could be dropped on stone floor without breaking.

No. 44—Pocket Size ..... \$1.50  
No. 45—Desk size with legs ..... 1.50

## SEED TRADE REPORTING BUREAU

325 W. Huron St. • Chicago, Illinois

## ACME NICOTINE POULTRY DELOUSER

... spreads farther ... costs less  
... lasts longer



—and pays you a better  
profit on every sale

Lice and mites leave town in a hurry when the new Acme Nicotine Poultry Delouser enters the henhouse. A special patented formula slows down the fuming of the delouser, thereby keeping it active and effective much longer than with an ordinary volatile liquid that evaporates quickly.

No wonder that Acme Delouser sells on sight! It stays effective longer, costs less to apply, and kills just as surely. Also can be used as an excellent contact spray against aphids on flowers and vegetables. Harmless to vegetation and leaves no odor.

Attractively packed in 2 oz. handy collapsible tubes, and in pint, quart and gallon containers. Tubes retail for 35c, larger cans proportionately. Mail coupon for full information to

### Acme White Lead & Color Works

Insecticide Division

Detroit, Michigan

Acme White Lead & Color Works

Insecticide Division

8290 St. Aubin Ave.

Detroit, Mich.

Gentlemen:

Please send us full information and dealer discounts on your Nicotine Poultry Delouser.

Name.....

Address.....

City..... State.....

## POULTRY SUPPLIES

### BABY CHICKS

Ada Baby Chick Hatchery  
Ada, Ohio  
Atz Blue Mound Hatchery Co.  
Milltown, Ind.  
Barr & Son, P.  
Zeeland, Mich.  
Berry's Poultry Farm  
Clarinda, Iowa  
Capital Poultry Farm & Hatchery  
Columbia, S. C.  
Clover Valley Poultry Farm & Hatchery  
Ramsey, Ind.  
Davis Poultry Farm  
Ramsey, Ind.  
Hoosier Chick Hatchery  
Indianapolis, Ind.  
Illinois Hatchery  
Metropolis, Ill.  
Johnson Hatchery, Alf.  
Leonardville, Kan.  
Lakeview Poultry Farm  
Holland, Mich.  
Maplewood Hatchery  
Lanesville, Ind.  
Marion Hatcheries  
Marion, Ohio  
Meadow View Hatchery  
St. Peter, Minn.  
Miller Hatcheries, Inc.  
Lancaster, Mo.  
Moweaqua Seed Co. Hatchery  
Moweaqua, Ill.  
Reinhart's Hatchery  
New Salisbury, Ind.  
Rural Poultry Farm  
Zeeland, Mich.  
Russell Hatchery  
Corvallis, Ore.  
Smith Chickeries  
Mexico, Mo.  
Sterling Hatchery  
Ramsey, Ind.  
Sunshine Hatcheries  
Corydon, Ind.  
Triple "C" Hatcheries  
Centerville, Iowa  
Van Wert Hatchery  
Van Wert, Ohio.

### BABY CHICK BOXES

Anderson Box Co.  
Indianapolis, Ind.  
Illinois Supply Co.  
Aurora, Ill.  
Keipper Cooping Co.  
Milwaukee, Wis.

### BROODERS

#### (Coal, Oil Burning, Feather, Gas and Electric)

Anderson Box Co.  
Indianapolis, Ind.  
Brower Mfg. Co.  
Quincy, Ill.  
Buckeye Incubator Co.  
Springfield, Ohio  
General Metalware Corp.  
Minneapolis, Minn.  
**Hoeft & Co.**  
North Chicago, Ill.  
(See Adv. on Page 155)  
**Hudson Mfg. Co., H. D.**  
Chicago, Ill.  
(See Adv. on Page 119)  
Illinois Supply Co.  
Aurora, Ill.  
James Mfg. Co.  
Fort Atkinson, Wis.  
Oakes Mfg. Co.  
Tipton, Ind.  
Phelan Brooder Co.  
Oklahoma City, Okla.  
Poorman, John G. (Feather)  
Tinley Park, Ill.  
Putnam, Inc., L.  
Elmira, N. Y.

### Reliable Incubator & Brooder Co. Quincy, Ill.

(See Adv. on Page 153)  
Sheer Co., H. M.  
Quincy, Ill.  
Simplex Brooder Stove Co.  
Grand Rapids, Mich.  
Trumbull Electric Mfg. Co.  
Plainville, Conn.

### BROODERS—STORAGE

Ball-Biddle Co.  
Riverton, N. J.  
Anderson Box Co.  
Indianapolis, Ind.  
Buckeye Incubator Co.  
Springfield, Ohio  
Oakes Mfg. Co.  
Tipton, Ind.  
Reliable Incubator & Brooder Co.  
Quincy, Ill.

(See Adv. on Page 153)

### CARBOLINEUM

(See Creosote Products)

### CHARCOAL

Chesmore Seed Co.  
St. Joseph, Mo.  
Gulf City Mfg. Co.  
Mobile, Ala.  
Tennessee Eastman Corp.  
Kingsport, Tenn.  
Wittig Co., F.  
Milwaukee, Wis.

### CHICKEN MITE KILLER

C-A Wood Preserver Co.  
St. Louis, Mo.  
(See Adv. on Page 155)  
Carbolineum Wood Preserving Co.  
Milwaukee, Wis.  
Electric Sprayit Co.  
South Bend, Ind.  
Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)

### CONCENTRATED COD LIVER OIL

Health Products Co.  
Newark, N. J.  
National Oil Products Co.  
Harrison, N. J.

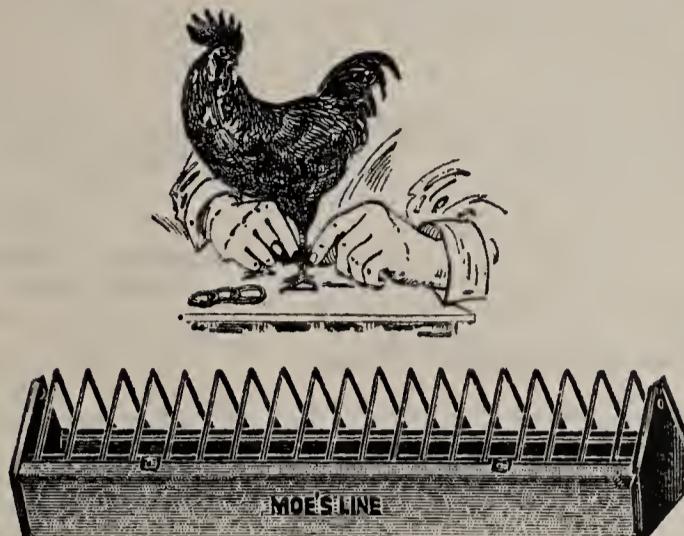
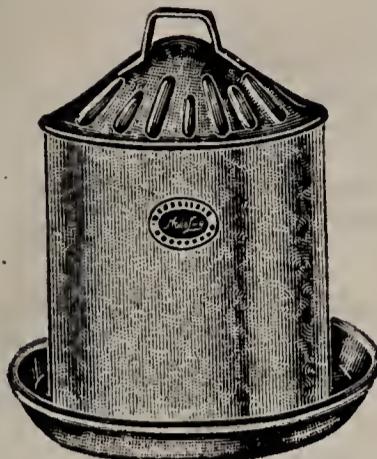
### CREOSOTE PRODUCTS

C-A Wood Preserver Co.  
St. Louis, Mo.  
(See Adv. on Page 155)  
Carbolineum Wood Preserving Co.  
Milwaukee, Wis.

### DISINFECTANTS

Aeroil Burner Co.  
West New York, N. J.  
Ansul Chemical Co.  
Marinette, Wis.  
Carbola Chemical Co.  
Natural Bridge, N. Y.  
C-A Wood Preserver Co.  
St. Louis, Mo.  
(See Adv. on Page 155)  
Chipman Chem. Co., Inc.  
Bound Brook, N. J.  
Conkey Co., G. E.  
Cleveland, Ohio  
Duggar Mfg. Co., L. G.  
Hope Hull, Ala.  
Electric Sprayit Co.  
South Bend, Ind.  
General Laboratories, Inc.  
Philadelphia, Pa.  
Good, Inc., James  
Philadelphia, Pa.  
(See Adv. on Page 147)  
Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)  
Grasselli Chemical Co.  
Cleveland, Ohio  
(See Adv. on Second Cover.)

# POULTRY SUPPLIES



**Moe's Line**—Always a symbol of *Excellence* and *Value* in Poultry Equipment.

A big complete line of Feeders, Waterers, etc. Everything needed, and the success of the many Seed Dealers now selling *Moe's Line* is proof of its superior quality and national popularity. Write for Catalog and Prices.

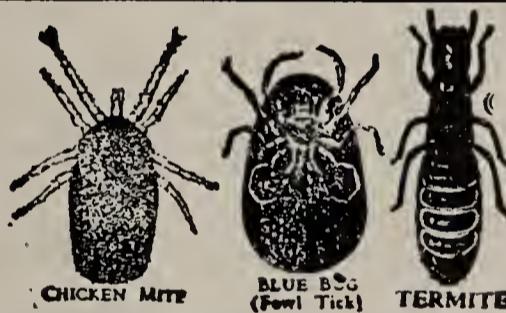
**HOEFT & COMPANY**  
INCORPORATED

2311 Davis Street

::

North Chicago, Ill.

# KILL 'EM



"Uncle Sam" cannot spray your poultry houses, yet he has recommended what to use. U. S. Farm Bulletins 801 and 1070 show that pure honest ANTHRACENE OIL Carbolineum outlasts any other product when used to kill mites and blue bugs. Most State Experiment Stations also recommend it.

We have sold it for 48 years. Ours is the only one in the world guaranteed by affidavit to be like that recommended by the Government. It is not adulterated. LASTS FROM 1 TO 3 YEARS. Kills termites; also stops the rot of wood. Write us for prices and samples.

**C-A WOOD PRESERVER CO., 6624 Delmar Blvd., ST. LOUIS, MISSOURI**

## MORE THAN 12,500,000 BUYERS

of seeds, plants, bulbs, nursery stock, pets and pet supplies, poultry supplies and various accessories, are patrons of SEED WORLD readers.

## POULTRY SUPPLIES—Continued

**Disinfectants—Continued**

- LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.
- Merck & Co., Inc.  
Rahway, N. J.
- Nicotine Mfg. Co.  
Henderson, Ky.
- Rohm & Haas Co., Inc.  
Philadelphia, Pa.  
(See Adv. on Page 145)
- Shepard Laboratories  
Council Bluffs, Iowa
- Sherwin-Williams  
Cleveland, Ohio
- Smith & Co., D. B.  
Utica, N. Y.
- Sterilac Co., The  
North Chicago, Ill.
- Tobacco By-Products and Chemical Corp.  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-  
159)

**DRINKING FOUNTAINS**

- Anderson Box Co.  
Indianapolis, Ind.
- Baier Bros. Mfg. Co.  
Cissna Park, Ill.
- Brower Mfg. Co.  
Quincy, Ill.
- Cyclone Mfg. Co., The  
Urbana, Ind.
- Felker, C. H.  
Boston, Mass.
- Hall Mfg. Co.  
Cedar Rapids, Iowa
- Hoeft & Co., Inc.**  
North Chicago, Ill.  
(See Adv. on Page 155)

- Hudson Mfg. Co., H. D.**  
Chicago, Ill.  
(See Adv. on Page 119)

- Illinois Supply Co.  
Aurora, Ill.
- James Mfg. Co.  
Ft. Atkinson, Wis.
- Mit-Shel Stamping Mfg. Co.  
Quincy, Ill.
- National Poultry Band Co.  
Newport, Ky.
- Oakes Mfg. Co.  
Tipton, Ind.
- Phelan Brooder Co.  
Oklahoma City, Okla.
- Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)

- Sheer Co., H. M.  
Quincy, Ill.
- Simplex Brooder Stove Co.  
Grand Rapids, Mich.
- Thompson & Sons, O. E.**  
Ypsilanti, Mich.  
(See Adv. on Page 139)

**EGG CARTONS**

- Egg Safety Carton Co.  
Chicago, Ill.
- Hoeft & Co.**  
North Chicago, Ill.  
(See Adv. on Page 155)
- Illinois Supply Co.  
Aurora, Ill.
- Metal Egg Crate Co.  
Fredericksburg, Va.
- Safe-Service Egg Case Co.  
Three Rivers, Mich.
- Self Locking Carton Co.  
Chicago, Ill.
- Standard Trunk Mfg. Co. (Fibre)  
New York, N. Y.
- Surety Egg Box Co.  
Hohokus, N. J.

**EGG PRESERVATIVES**

- California Egg Preserver Co.  
San Francisco, Calif.
- Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)
- Mechling Bros. Chemical Co.**  
Camden, N. J.  
(See Adv. on Page 121)

**EGG SCALES**

- Brower Mfg. Co.  
Quincy, Ill.
- Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)
- Specialty Mfg. Co.  
St. Paul, Minn.

**EGG TESTERS**

- Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)

**FEED—POULTRY**

- Ackerman Company**  
Lima, Ohio  
(See Adv. on Page 27)
- Allied Mills  
Chicago, Ill.
- American Dry Milk Institute  
Chicago, Ill.
- Badenoch Co., J. J.  
Chicago, Ill.
- Blamberg Bros., Inc.**  
Baltimore, Md.  
(See Adv. on Page 23)
- Chapin & Co.  
Hammond, Ind.
- Conkey Co., G. E.  
Cleveland, Ohio
- Darling & Co.  
Chicago, Ill.
- Dickinson Co., The Albert**  
Chicago, Ill.  
(See Adv. on Page 132)
- Goldberg Seed & Feed Co.  
Fargo, N. D.
- Happy Feed Mills, Inc.  
Memphis, Tenn.
- Health Products Corp. (Clo-Trate)  
Newark, N. J.

- Hoeft & Co.**  
North Chicago, Ill.  
(See Adv. on Page 155)

- Kalo Co. (Mineral Feeds)**  
Quincy, Ill.  
(See Adv. on Page 135)

- Krause Milling Co.  
Milwaukee, Wis.
- Marden-Wild Corp. (Cod Liver Oil)  
Somerville, Mass.
- Mead, Johnson & Co.  
Evansville, Ind.

- Minneapolis Seed Co.**  
Minneapolis, Minn.  
(See Adv. on Page 61)
- National Oil Products Co. (Cod Liver Oil)  
Harrison, N. J.

- Northrup, King & Co.**  
Minneapolis, Minn.  
(See Adv. on Page 5)

- Northwestern Yeast Co. (Yeast)  
Chicago, Ill.

- Nowak Milling Co.  
Hammond, Ind.

- Ouren Seed Co.**  
Council Bluffs, Iowa  
(See Adv. on Page 59)

- Philadelphia Seed Co.**  
Philadelphia, Pa.  
(See Adv. on Page 26)

- Pratt Food Co.  
Philadelphia, Pa.

- Radway-McCullough Seeds, Inc.**  
New York City, N. Y.  
(See Adv. on Page 63)

- Ralston Purina Co.  
St. Louis, Mo.

- Scarlett & Co., Wm. G.**  
Baltimore, Md.  
(See Adv. on Page 40)

- Ubiko Milling Co.  
Cincinnati, Ohio

- Vitality Mills  
Chicago, Ill.

- Wells Milling Co., A. G.  
Depere, Wis.

- Wilson & Co., Inc.  
Chicago, Ill.

- Wood & Sons, T. W.  
Richmond, Va.

## POULTRY SUPPLIES—Continued

## FEED HOPPERS

Anderson Box Co.  
Indianapolis, Ind.  
Cyclone Mfg. Co., The  
Urbana, Ind.  
**Hoeft & Co., Inc.**  
North Chicago, Ill.  
(See Adv. on Page 155)

**Hudson Mfg. Co., H. D.**  
Chicago, Ill.  
(See Adv. on Page 119)

James Mfg. Co.  
Ft. Atkinson, Wis.  
Mit-Shel Stamping Mfg. Co.  
Quincy, Ill.  
Oakes Mfg. Co.  
Tipton, Ind.

**Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)

**Thompson & Sons, O. E.**  
Ypsilanti, Mich.  
(See Adv. on Page 139)

## FLOAT VALVES

**Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)

## FOOD COOKER

**Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)

## GLASS—POULTRY HOUSE

Acetol Products Co.  
Wilmington, Del.  
Allen Brothers, Inc.  
Omaha, Nebr.  
Fleming Bros.  
Chicago, Ill.  
Flex-O-Glass Mfg. Co.  
Chicago, Ill.  
**Hoeft & Co., Inc.**  
North Chicago, Ill.  
(See Adv. on Page 155)

Turner Bros.  
Bladen, Neb.  
Vitalite Co.

New York, N. Y.

## GRIT

Limestone Products Corp. of America  
Newton, N. J.  
Louisiana Crushing Co.  
Houma, La.

Ohio Marble Co.  
Piqua, Ohio

## INCUBATORS

Automatic Incubator Co.  
Delaware, Ohio  
Buckeye Incubator Co.  
Springfield, Ohio  
Bundy Incubator Co.  
Springfield, Ohio  
**Hoeft & Company, Inc.**  
North Chicago, Ill.  
(See Adv. on Page 155)

James Mfg. Co.  
Ft. Atkinson, Wis.  
Oakes Mfg. Co.  
Tipton, Ind.  
Petersime & Son, Ira M.  
Gettysburg, Ohio

**Reliable Incubator & Brooder Co.**  
Quincy, Ill.

(See Adv. on Page 153)  
Smith Incubator Co.  
Cleveland, Ohio  
Smith Co., Wellington J.  
Cleveland, Ohio

## LEG BANDS

**Hoeft & Co., Inc.**  
North Chicago, Ill.  
(See Adv. on Page 155)

National Poultry Band Co.  
Newport, Ky.  
Oakes Mfg. Co.  
Tipton, Ind.

**Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)

## LICE KILLERS

**Acme White Lead & Color Works**  
Detroit, Mich.  
(See Adv. on Page 153)

"Black Leaf 40"  
**Tobacco By-Products & Chemical Corp.**  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)

Burrell-Dugger Co.  
Indianapolis, Ind.

**Good, Inc., James**  
Philadelphia, Pa.  
(See Adv. on Page 147)

**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)

Lee Co., Geo. H.  
Omaha, Neb.

LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.

Merck & Co., Inc.  
Rahway, N. J.

National Poultry Band Co.  
Newport, Ky.

Nicotine Mfg. Co.  
Henderson, Ky.

Shepard Laboratories  
Council Bluffs, Iowa

Smith & Co., D. B.  
Utica, N. Y.

Uniform Products Co.  
New York, N. Y.

## MARKING PUNCHES

Bayerdorfer, M.  
Huguenot Park, N. Y.

**Hoeft & Co.**  
North Chicago, Ill.  
(See Adv. on Page 155)

National Poultry Band Co.  
Newport, Ky.

**Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)

## MEAT SCRAPS

Badenoch Co., J. J.  
Chicago, Ill.  
Conkey Co., The G. E.  
Cleveland, Ohio  
Darling & Co.  
Chicago, Ill.

WHILE YOU'RE AT IT  
GET THEM ALL!

"Black Leaf 40"

"Black Leaf 40" spread lightly on perches gives a clean-up of body lice and feather mites of poultry. "Black Leaf 40" contains plenty of nicotine to kill adult lice and there will be enough remaining on the perches to kill young lice as they hatch. Under ordinary conditions lice hatch in from seven to ten days—thus "Black Leaf 40" gives a thorough clean-up. A drop on the back of bird's necks kills head lice. When you sell "Black Leaf 40" you are selling satisfaction and repeat orders.

KILLS BOTH YOUNG AND ADULT LICE ON POULTRY  
TOBACCO BY-PRODUCTS & CHEMICAL CORP., INC., LOUISVILLE, KENTUCKY

## POULTRY SUPPLIES—Continued

**Meat Scraps—Continued**

Reading Bone Fertilizer Co.  
Reading, Pa.  
Stadler Products Co.  
Cleveland, Ohio  
Swift & Co.  
Chicago, Ill.  
Wilson & Co., Inc.  
Chicago, Ill.

**NESTS**

Brower Mfg. Co.  
Quincy, Ill.  
**Hoeft & Co., Inc.**  
North Chicago, Ill.  
(See Adv. on Page 155)  
Illinois Supply Co.  
Aurora, Ill.  
Nieman Bros. Mfg. Co.  
Mt. Olive, Ill.  
Oakes Mfg. Co.  
Tipton, Ind.  
**Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)

**NEST EGGS**

**Hoeft & Co., Inc.**  
North Chicago, Ill.  
(See Adv. on Page 155)  
Illinois Supply Co.  
Aurora, Ill.  
Opal Glass Co.  
Fairmont, W. Va.  
Reynolds Mfg. Co.  
Fredericktown, Ohio  
Wood & Sons, T. W.  
Richmond, Va.

**OYSTER SHELLS**

Badenoch Co., J. J.  
Chicago, Ill.  
Conkey Co., The G. E.  
Cleveland, Ohio  
Oyster Shell Prod. Corp.  
New York, N. Y.  
Peerless Oyster Co.  
Baltimore, Md.

**PIGEON SUPPLIES**

Bayerdorfer, M.  
Huguenot Park, N. Y.  
**Blamberg Bros., Inc.**  
Baltimore, Md.  
(See Adv. on Page 23)  
Conkey Co., The G. E. (Feeds)  
Cleveland, Ohio  
Cyclone Mfg. Co., The  
Urbana, Ind.  
**Dickinson Co., The Albert (Feeds)**  
Chicago, Ill.  
(See Adv. on Page 132)  
Hews & Co., A. H. (Nests)  
Cambridge, Mass.  
Illinois Supply Co.  
Aurora, Ill.  
Mussog's Bird Store  
Philadelphia, Pa.  
National Pet Shops  
St. Louis, Mo.  
Nowak Milling Co. (Feed)  
Hammond, Ind.  
**Philadelphia Seed Co. (Feed)**  
Philadelphia, Pa.  
(See Adv. on Page 26)  
**Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)  
**Searlett & Co., Wm. G.**  
Baltimore, Md.  
(See Adv. on Page 40)

**POULTRY LITTER**

Albers Bros. Mfg. Co.  
San Francisco, Cal.  
Anderson Box Co.  
Indianapolis, Ind.  
**Atkins & Durbrow, Inc.**  
New York, N. Y.  
(See Adv. on Page 129)  
Bremermann & Co., Ernst  
New York, N. Y.

**Klein Mfg. Co.**

Burlington, Iowa

**Julius Loewith, Inc.**

New York, N. Y.

(See Adv. on Page 63)

**Peat Import Corp.**

New York, N. Y.

**Phillips, C. J.**

St. Louis, Mo.

**Premier Peat Moss Corp.**

New York, N. Y.

**Searlett & Co., Wm. G.**

Baltimore, Md.

(See Adv. on Page 40)

**The O. K. Co.**

New York, N. Y.

**Wilber-Ellis**

San Francisco, Cal.

**POULTRY REMEDIES****American Dry Milk Institute**

Chicago, Ill.

**Atlanta Chemical Co.**

Atlanta, Ga.

**Barnes Emulsion Co.**

Gardena, Calif.

**Bee Dee Stock Medicine Co.**

Chattanooga, Tenn.

**"Black Leaf 40"****Tobacco By-Products & Chemical Corp.**

Louisville, Ky.

(See Adv. on Pages 140-142-157-159)

**Burrell-Dugger Co.**

Indianapolis, Ind.

**Carbola Chemical Co.**

Natural Bridge, N. Y.

**Carbolineum Wood Preserving Co.**

Milwaukee, Wis.

**Chic-Tone Co., Inc.**

Augla, Ind.

**Columbus Vaccine Co.**

Columbus, Ohio

**Conkey Co., G. E.**

Cleveland, Ohio

**French Co., R. T.**

Rochester, N. Y.

**General Laboratories, Inc.**

Philadelphia, Pa.

**Germo Mfg. Co.**

St. Louis, Mo.

**Gland-O-Lac Co.**

Omaha, Neb.

**Glover Co., Inc., H. Clay**

New York, N. Y.

**Good, Inc., James**

Philadelphia, Pa.

(See Adv. on Page 147)

**Hess & Clark, Inc., Dr.**

Ashland, Ohio

**Kalo Co.**

Quincy, Ill.

(See Adv. on Page 135)

**Lee Co., Geo. H.**

Omaha, Neb.

**LeGear Medicine Co., Dr. L. D.**

St. Louis, Mo.

**Magic Stock Remedy Co., Inc.**

Chattanooga, Tenn.

**Old Kentucky Mfg. Co.**

Paducah, Ky.

**Pratt Food Co.**

Philadelphia, Pa.

**Russell Co., I. D.**

Kansas City, Mo.

**Salsbury, Dr. J. E.**

Charles City, Iowa

**Sheer Co., H. M.**

Quincy, Ill.

**South Mountain Hennery Co., The**

Middletown, Md.

**Standard Chem. Mfg. Co.**

Omaha, Nebr.

**Trengove Poultry Farm**

Portland, Ore.

**Wood & Sons, T. W.**

Richmond, Va.

**POULTRY HOUSES****Beck Bros.**

Herrick, Ill.

## POULTRY SUPPLIES—Concluded

## RABBIT SUPPLIES

**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)

**Illinois Supply Co.**  
Aurora, Ill.

**Root Co. of Iowa, A. I.**  
Council Bluffs, Iowa

## SCRAPERS—DROP BOARD

**C-K-R Co.**  
Cleveland, Ohio

**Reliable Incubator & Brooder Co.**  
Quincy, Ill.  
(See Adv. on Page 153)

## SODIUM FLUORIDE

**Burrell-Dugger Co.**  
Indianapolis, Ind.  
**Carbolineum Wood Preserving Co.**  
Milwaukee, Wis.  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)  
**Grasselli Chemical Co., The**  
Cleveland, Ohio  
(See Adv. on Second Cover)

**Merck & Co., Inc.**  
Rahway, N. J.  
**Virginia-Carolina Chemical Corp.**  
Richmond, Va.

## TOBACCO POWDER

**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)

Nicotine Production Corp.  
Clarksville, Tenn.

**Tobacco By-Products & Chemical Corp.**  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)

**Uniform Products Co.**  
New York, N. Y.

## WORM MEDICINE

**Barnes Emulsion Co.**  
Gardena, Calif.

**Le Gear Medicine Co., Dr. L. D.**  
St. Louis, Mo.

**Merck & Co., Inc.**  
Rahway, N. J.

**Pratt Food Co.**  
Philadelphia, Pa.

**Tobacco By-Products & Chem. Corp.**  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)

## STOCK FOODS AND REMEDIES

## STOCK FOODS

**Allied Mills**  
Chicago, Ill.  
**American Dry Milk Institute**  
Chicago, Ill.  
**Badenoch Co., J. J.**  
Chicago, Ill.  
**Blatchford Calf Meal Co.**  
Waukegan, Ill.  
**Conkey Co., G. E.**  
Cleveland, Ohio  
**Dairy Association Co., Inc.**  
Lyndonville, Vt.  
**Happy Feed Mills, Inc.**  
Memphis, Tenn.  
**International Sugar Feed Co.**  
Minneapolis, Minn.  
**Kalo Company**  
Quincy, Ill.  
(See Adv. on Page 135)  
**Magic Stock Remedy Co., Inc.**  
Chattanooga, Tenn.  
**Newday Seeds, Inc.**  
Fargo, N. D.  
(See Adv. on Page 25)  
**Nowak Milling Corporation**  
Hammond, Ind.  
**Penick & Ford Sales Co., Inc.**  
Cedar Rapids, Iowa  
**Pratt Food Co.**  
Philadelphia, Pa.  
**Ralston Purina Co.**  
St. Louis, Mo.  
**Security Calf Food Co.**  
Minneapolis, Minn.  
**Vitality Mills**  
Chicago, Ill.

**Wilson & Co., Inc.**  
Chicago, Ill.

## STOCK REMEDIES

**Blackman Stock Remedy Co.**  
Chattanooga, Tenn.

**Dairy Association Co.**  
Lyndonville, Vt.

**Fleming Bros.**  
Chicago, Ill.

**Gland-O-Lac Co.**  
Omaha, Neb.

**Glover Co., Inc., H. Clay**  
New York, N. Y.

**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)

**Hess & Clark, Inc., Dr.**  
Ashland, Ohio

**Kalo Company**  
Quincy, Ill.  
(See Adv. on Page 135)

**Lee Co., Geo. H.**  
Omaha, Neb.

**LeGear Medicine Co., Dr. L. D.**  
St. Louis, Mo.

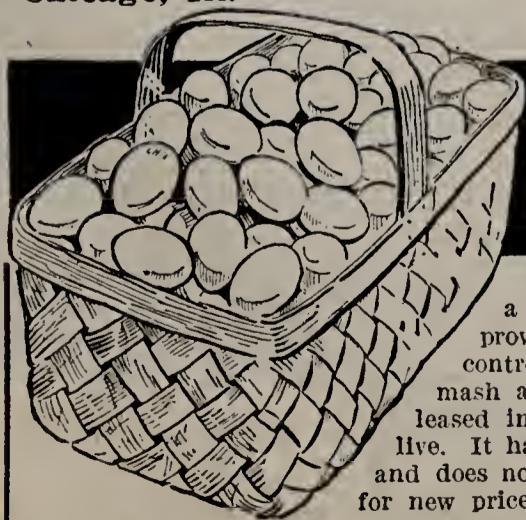
**Lusterine Mfg. Co., Inc.**  
Bridgeport, Conn.

**Nowak Milling Co.**  
Hammond, Ind.

**Pratt Food Co.**  
Philadelphia, Pa.

**Security Calf Food Co.**  
Minneapolis, Minn.

**Standard Chemical Mfg. Co.**  
Omaha, Neb.



# There's NO BREAK IN PRODUCTION

"Black Leaf" Worm Powder is nicotine in a new form—odorless and tasteless. It provides quick, effective and low-priced control for poultry roundworm. Mix in a mash and feed once. The nicotine is released in the intestines where the worms live. It has no toxic effect on the birds—and does not interrupt production. Write for new prices, leaflets and sales-helps.

**Black Leaf**  
WORM  
POWDER

TOBACCO BY-PRODUCTS & CHEMICAL CORP., INC.  
Louisville, Kentucky.

## MISCELLANEOUS SIDE LINES

### BEE SUPPLIES

Dadant & Sons  
Hamilton, Ill.  
Kilgore Seed Co.  
Plant City, Fla.  
Leahy Mfg. Co.  
Higginsville, Mo.  
Lewis Co., G. B.  
Watertown, Wis.  
**Root Co., A. I.**  
Medina, Ohio  
(See Adv. on Page 161)

Root Co. of Iowa, A. I.  
Council Bluffs, Iowa.  
Scott Co., I. W.  
Pittsburgh, Pa.

### BOOKS ON FARMING AND GARDENING

DeLaMare Co., Inc., A. T.  
New York City, N. Y.  
Doubleday, Doran & Co.  
Garden City, N. Y.  
Lippincott Co., J. B.  
Philadelphia, Pa.  
Little, Brown & Co.  
Boston, Mass.  
MacMillan Co., The  
New York City, N. Y.  
Orange Judd Publ. Co., Inc.  
New York City, N. Y.

### BOWLS—BULB

Brush Pottery Co.  
Zanesville, Ohio  
Haeger Potteries  
Dundee, Ill.  
Louisville Pottery Co., Inc.  
Louisville, Ky.  
Paducah Pottery Co.  
Paducah, Ky.  
Pittsburg Pottery Co.  
Pittsburg, Kan.  
Roseville Pottery Co.  
Zanesville, Ohio  
Uhl Pottery Co.  
Evansville, Ind.  
Wells Glass Co. (Colored Glass Chips)  
Kokomo, Ind.  
Western Stoneware Co.  
Monmouth, Ill.  
Zane Pottery Co.  
So. Zanesville, Ohio

### BRAIDS—TYING

Fricke Co., J. E.  
Philadelphia, Pa.

### DAIRY SUPPLIES

Cherry-Burrell Corp.  
New York, N. Y.  
Creamery Package Mfg. Co.  
New York, N. Y.  
Duggar Mfg. Co., L. G.  
Hope Hull, Ala.  
Pilling & Son Co., G. P.  
Philadelphia, Pa.  
Pratt Mfg. Co., Wm. E.  
Joliet, Ill.  
Toledo Bottle Cap Co.  
Toledo, Ohio

### FLOWERS—ARTIFICIAL

Adler-Jones Co.  
Chicago, Ill.  
DeWitt Sisters  
Battle Creek, Mich.  
**FRUIT GRADERS**  
**Oliver Mfg. Co.**  
St. Louis, Mo.  
(See Adv. on Page 55)

### GARDEN GLOVES

National Glove Co.  
Columbus, Ohio

### GLOBES (GAZING)

Express Body Corp.  
Crystal Lake, Ill.  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.  
Testrite Instrument Co. (Also Sun Dials)  
New York, N. Y.  
Western Stoneware Co.  
Monmouth, Ill.

### HANGING BASKETS

**Michigan Wire Goods Co.**  
Niles, Mich.  
(See Adv. on Page 139)  
**Miller & Doing**  
Brooklyn, N. Y.  
**Pittsburg Pottery Co.**  
Pittsburg, Kan.  
Raedlein Basket Co.  
Chicago, Ill.  
Savo Mfg. Co.  
Chicago, Ill.  
Western Stoneware Co.  
Monmouth, Ill.

### MUSHROOM SPAWN

American Spawn Co.  
St. Paul, Minn.  
Chester County Mushroom Laboratories  
West Chester, Pa.  
Jacob, Inc., Edward H.  
West Chester, Pa.  
Lambert, L. F.  
Coatesville, Pa.

### HOTKAPS

**Germain Seed & Plant Co.**  
Los Angeles, Calif.  
(See Adv. on Page 161)

### RAFFIA

Kilgore Seed Co.  
Plant City, Fla.  
King & Walters, Inc.  
New York, N. Y.  
**Loewith, Inc., Julius**  
New York City, N. Y.  
(See Adv. on Page 63)  
**McHutchison & Co.**  
New York, N. Y.  
(See Adv. on Page 161)  
Meehan Co., Thomas B.  
Dresher, Pa.  
Schoorl, Adrian J.  
San Francisco, Cal.

### SCOOPS

**Michigan Wire Goods Co. (Wire)**  
(Potato, Corn, Apple)  
Niles, Mich.  
(See Adv. on Page 139)

### SEED TESTING

Commercial Seed Laboratory  
Washington, D. C.  
**International Seed Service, Inc.**  
New York, N. Y.  
(See Adv. on Page 59)  
National Seed Laboratory  
Toledo, Ohio

### SOIL STERILIZERS

**Aeroil Burner Co., Inc.**  
West New York, N. J., Chicago &  
San Francisco  
Bayer Semesan Co.  
Wilmington, Del.  
**Grasselli Chemical Co.**  
Cleveland, Ohio  
(See Adv. on Second Cover)  
General Chemical Co.  
New York, N. Y.  
**Hammond Paint & Chem. Co.**  
Beacon, N. Y.  
(See Adv. on Page 143)

# Sell Root Quality Bee Supplies

...ΦΙΦ...

A side line that brings new customers into your store. Big 64 page catalog free for store inquiries. Get in our line-up of Root dealers for 1935 and benefit by our listing your name in our catalog.

*Write for our advertising proposition in your seed catalog.*

The  
A. I. Root Co.  
Medina, Ohio  
BOX 40.



Our Advertisers Made  
This Book Possible

**USE THE STICKER!**  
(Page Facing Inside Back Cover)

and you will convince  
them that it was worth  
the effort.

**RAFFIA**  
**DIRECT IMPORTS**  
*and*  
**Immediate Shipment**  
**From Warehouse Stock**

» CARLOADS  
or LESS «

We have exclusive connections at the source. We handle no odd lots of questionable origin accumulated in European ports. Our quality is always uniformly good and prices low.

State Your Needs for Quotation



**AUSTRALIAN GRASS SEEDS**  
*Import and Spot Shipment*  
**JAP. BAMBOO CANES**  
**CHINESE TONKIN CANES**  
**FLOWER BULB SPECIALTIES**

**McHutchison & Co.**  
95 Chambers St. New York



An "Individual Hothouse" For Every Plant



Germāco  
**Hotkaps**

*GET CROPS TO MARKET  
3 WEEKS EARLIER*

Sell Hotkaps to your customers. They profit; you, too. Write for descriptive pamphlet and sample.

**GERMAIN'S**  
**HOTKAP MFG. DIVISION**  
741-747 Terminal Street,  
Los Angeles, Calif.

## MISCELLANEOUS SIDE LINES—Concluded

**SOIL TESTERS**

**Dickinson Co., The Albert**  
Chicago, Ill.

(See Adv. on Page 132)

**Earp-Thomas Laboratory**  
Bloomfield, N. J.

**TAPES—TYING**

**Fricke Co., J. E. (Tying and Gummed)**  
Philadelphia, Pa.

**TREE PROTECTION**

**Davey Tree Expert Co. (Surgeons)**  
Kent, Ohio

**Hammond Paint & Chem. Co. (Tree Wound**  
**Paint)**

**Beacon, N. Y.**

(See Adv. on Page 143)

**Owens Co., J. L.**  
Minneapolis, Minn.

**Tanglefoot Co., The**  
Grand Rapids, Mich.

**TWINE-SEWING AND TYING**

**Bemis Bro. Bag Co.**  
St. Louis, Mo.

(See Adv. on Page 1)

**Chase Bag Co.**  
Cleveland, Ohio

**Fricke Co., J. E.**  
Philadelphia, Pa.

**Southern Cotton Mills Agency**  
Baltimore, Md.

**TWINE-BINDER AND WRAPPING**

**Fricke Co., J. E.**  
Philadelphia, Pa.

**TYING MACHINES**

**Bunn Co., B. H. (Package Tying Machines)**  
Chicago, Ill.

**Felins Tying Machine Co.**  
Milwaukee, Wis.

**National Bundle Tyer Co. (Vegetable)**  
Blissfield, Mich.  
**Tie Company, The**  
Unadilla, N. Y.

**WEED BURNERS**

**Aeroll Burner Co., Inc.**  
West New York, N. J., Chicago &  
San Francisco

**XMAS GREENS**

**Chesmore Seed Co.**  
St. Joseph, Mo.

**Conwell, Inc., H. Ernest**  
Milton, Del.

**Diamond State Evergreen Co.**  
Milton, Del.

**Jones, The Holly Wreath Man**  
Milton, Del.

**Neilson, Knud**

Evergreen, Ala.

**Platten's Christmas Trees, Inc.**  
Green Bay, Wis.

**Quality Seed House (Mistletoe)**  
Chickasha, Okla.

**E. C. Robbins**

Pineola, N. C.

**Sioux City Seed Co.**

Sioux City, Iowa

(See Adv. on Pages 73 and 95)

**XMAS TREE HOLDERS**

**Arcade Mfg. Co.**  
Freeport, Ill.

**Campbell-Hausfeld Co., The**  
Harrison, Ohio

(See Adv. on Page 147)

**Chesmore Seed Co.**  
St. Joseph, Mo.

**Clark Mfg. Co., The**  
Philadelphia, Pa.

**Interstate Specialty Co.**  
North Manchester, Ind.

**Root Co. of Iowa, A. I.**  
Council Bluffs, Iowa

## SEEDSMEN'S SUPPLIES

**ACCOUNTANTS AND ACCOUNTING SYSTEMS**

**Ernst & Ernst**  
New York, N. Y.

**ADV. FOR SEEDSMEN**

**Benton Review Shop**  
Fowler, Ind.

**DeLaMare Co., Inc., A. T.**  
New York, N. Y.

**Dubois Press**  
Rochester, N. Y.

**McFarland Publicity Service**  
Harrisburg, Pa.

**Morse Co., A. B.**  
St. Joseph, Mich.

**Pitts Studios, Inc. (Cuts and Photos)**  
Rochester, N. Y.

**Rochester Litho. Co.**  
Rochester, N. Y.

**Wallace-Homestead Co.**  
Des Moines, Iowa

**ALFALFA MILLS**

**Sedberry, Inc., J. B.**  
Utica, N. Y.

(See Adv. on Page 167)

**APRONS**

**Atlantic Mfg. Co. (Leather)**  
Wilmington, Del.

**Windermere Products Mfg. Co. (Rubber)**  
Cleveland, Ohio

**BAG CLEANERS**

**Oliver Mfg. Co.**  
St. Louis, Mo.

(See Adv. on Page 55)

**BAG CLOSING MACHINES**

**Arnold Schuyler**  
Coldwater, N. Y.

(See Adv. on Page 163)

**Brown Bag Filling Machine Co.**  
Fitchburg, Mass.

(See Adv. on Page 163)

**Bates Valve Bag Corp.**  
New York, N. Y.

**Savage Co., W. J.**  
Knoxville, Tenn.

**Union Special Machine Co.**  
Chicago, Ill.

**BAG FILLING MACHINES**

**Brown Bag Filling Machine Co.**  
Fitchburg, Mass.

(See Adv. on Page 163)

**Ferguson Co., J. L.**  
Joliet, Ill.

**Frazier & Son**  
Belleville, N. J.

**Howes Co., Inc., S.**

Silver Creek, N. Y.

(See Adv. on Page 167)

**Huntley Mfg. Co.**  
Brocton, N. Y.

**Lehmann Co., Inc., J. M.**  
New York, N. Y.

**Richardson Scale Co.**  
Clifton, N. J.

**Sidney Grain Machinery Co.**

Sidney, Ohio

**Stokes & Smith Co., The**  
Philadelphia, Pa.

**Union Special Machine Co.**  
Chicago, Ill.

**BAG HOLDERS**

**Howes Co., Inc., S.**

Silver Creek, N. Y.

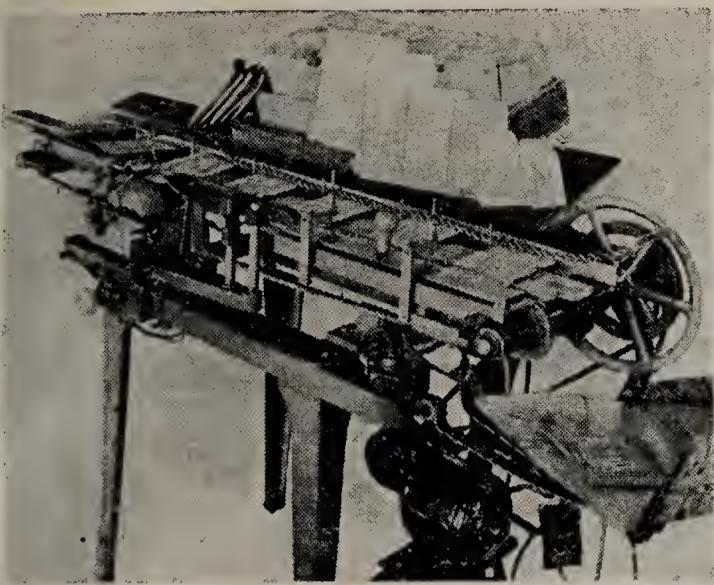
(See Adv. on Page 167)

**Richardson Scale Co.**

Clifton, N. J.

**Sprout, Waldron & Co.**

Muncy, Pa.



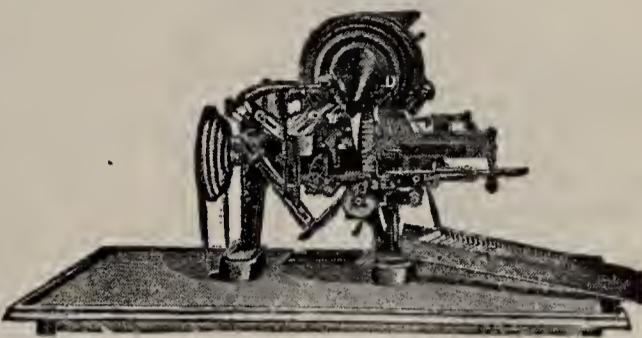
*The improved*  
**QUICK-SEAL**  
**Envelope Sealing Machine**

Will solve your seed packet and catalog envelope sealing problems. Designed and manufactured by a seedsman especially for seedsmen. Instantly adjustable to any size from small flower seed packets to pounds of beans and catalog envelopes. Capacity up to 6000 per hour and economically seals very small quantities. No servicing required —nothing to wear out. Pays for itself in one season.

For complete information write

**SCHUYLER ARNOLD**  
283 Marlborough Road, ROCHESTER, N.Y.

**Save TIME & MONEY  
with  
BROWN SEED  
PACKET FILLERS**



We manufacture a complete line of Return Envelopes, Seed Packets, Catalog Envelopes, Bag-Filling Machines for filling seeds in flat packets and Bag-Making machines. BROWN BAG FILLING MACHINES automatically fill flat packets with all varieties of seeds. Measure the seed. Fill the packet. Seal it tight. Require but one operator. Deliver 3,000 packets per hour. Reduce labor costs. Eliminate waste. Insure accuracy. Speed up orders.

*Write for Catalog C-30*

**THE BROWN BAG FILLING  
MACHINE COMPANY**  
FITCHBURG MASSACHUSETTS

# SEED BAG TRIERS

**QUICK — SAFE  
CONVENIENT**

Seed triers for quick, convenient drawing of samples without opening or tearing bag. Brass with steel point heavily nickel plated, with solid leather protector.

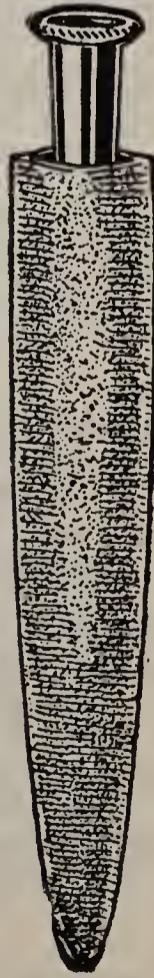
6 in. long, Price \$1.00 ea.; \$10.50 per doz.  
9 in. long, with metal shield, Price \$2.00 ea.  
12 in. long, with metal shield, Price \$3.00 ea.

**Seed Trade Reporting Bureau**

325 W. Huron St.

CHICAGO

ILLINOIS



## SEEDSMEN'S SUPPLIES—Continued

**BAG MAKING MACHINES**

**Brown Bag Filling Machine Co.**  
Fitchburg, Mass.  
(See Adv. on Page 163)

**BAG PILERS—CONVEYORS**

**Revolvator Co.**  
Jersey City, N. J.

**BAG SEALS**

**Bates Valve Bag Corp.**  
New York, N. Y.  
**Brooks Co., E. J.**  
Newark, N. J.  
(See Adv. on Page 165)

**Porter Safety Seal Co.**  
Chicago, Ill.  
(See Adv. on Page 165)

**Protecto-Seal Co.**  
Buffalo, N. Y.  
(See Adv. on Page 165)

**BAG STITCHING MACHINES**

**Savage Co., W. J.**  
Knoxville, Tenn.  
**Union Special Machine Co.**  
Chicago, Ill.

**BAG TRIERS**

**Seed Trade Reporting Bureau**  
Chicago, Ill.  
(See Adv. on Page 163)

**BASKETS**

**Planters Mfg. Co., Inc. (Field Tomato)**  
Portsmouth, Va.  
**Standard Basket Co.**  
Chicago, Ill.

**BEAN PICKERS**

**Ferrell & Co., A. T.**  
Saginaw, Mich.  
**Howes Co., Inc., S.**  
Silver Creek, N. Y.  
(See Adv. on Page 167)

**Huntley Mfg. Co.**  
Brocton, N. Y.

**BAGS—COTTON OR BURLAP**

**Bemis Bro. Bag Co.**  
St. Louis, Mo.  
(See Adv. on Page 1)  
**Chase Bag Co.**  
Cleveland, Ohio  
**Cincinnati Bag Co.**  
Cincinnati, Ohio  
**National Bag Co.**  
Naperville, Ill.  
**National Bag Co., Inc.**  
St. Louis, Mo.  
**Southern Cotton Mills Agency**  
Baltimore, Md.

**BAGS—PAPER**

**Bates Valve Bag Corp.**  
New York, N. Y.  
**Bemis Bro. Bag Co.**  
St. Louis, Mo.  
(See Adv. on Page 1)  
**Brown Bag Filling Machine Co.**  
Fitchburg, Mass.  
(See Adv. on Page 163)  
**Chase Bag Co.**  
Cleveland, Ohio  
**Disbrow Mfg. Co. (Satchel Bottom Bags and Packets)**  
Newark, N. J.  
(See Adv. on Page 174)  
**International Paper Co.**  
New York, N. Y.  
**Miller, Tompkins & Co.**  
East Rutherford, N. J.  
(See Adv. on Page 169)

**BELTING**

**Atlantic Mfg. Co. (Rubber and Leather)**  
Wilmington, Del.

**BLOWERS—ELECTRIC**

**Oliver Mfg. Co.**  
St. Louis, Mo.  
(See Adv. on Page 55)

**BOX LABELS AND HANGERS**

**Genesee Valley Lithograph Co.**  
Rochester, N. Y.

**BOXES—PARCEL POST**

**Campbell Box & Tag Co.**  
South Bend, Ind.  
(See Adv. on Page 175)

**Disbrow Mfg. Co.**  
Newark, N. J.  
(See Adv. on Page 174)  
**Container Corp. of America**  
Chicago, Ill.  
**Gaylord, Inc., Robt.**  
St. Louis, Mo.  
**Goodwillie Co., D. M.**  
Chicago, Ill.  
**Indiana Fibre Products Co.**  
Marion, Ind.  
**Hinde & Dauch Paper Co.**  
Sandusky, Ohio

**BULB EDGE GLASS**

**Heller & Co., W. C.**  
Montpelier, Ohio

**CANS—FIBRE AND TIN**

**American Can Co.**  
Chicago, New York and San Francisco  
**Sefton Nat'l Fibre Can Co.**  
Chicago, Ill.

**CARTONS—PAPER**

**Bird & Son**  
East Walpole, Mass.  
(See Adv. on Page 55)

**Campbell Box & Tag Co.**  
South Bend, Ind.  
(See Adv. on Page 175)

**Disbrow Mfg. Co. (Corrugated)**  
Newark, N. J.  
(See Adv. on Page 174)

**Galloway Lithographing Co.**  
San Francisco, Calif.  
(See Adv. on Page 165)

**Gereke-Allen Carton Co.**  
St. Louis, Mo.

**Stecher-Traung Lithograph Corp.**  
Rochester, N. Y.  
(See Adv. on Page 173)

**Weaver Mailing Env. & Box Co.**  
Philadelphia, Pa.

**Webster Co., Mel L.**  
Independence, Ia.

**CARTONS—PRINTED**

**Disbrow Mfg. Co.**  
Newark, N. J.  
(See Adv. on Page 174)

**Galloway Lithographing Co.**  
San Francisco, Calif.  
(See Adv. on Page 165)

**Genesee Valley Lithograph Co.**  
Rochester, N. Y.

**Stecher-Traung Lithograph Corp.**  
Rochester, N. Y.  
(See Adv. on Page 173)

**CATALOG COLORED COVERS**

**Benton Review Shop**  
Fowler, Ind.

**Dubois Press**  
Rochester, N. Y.

**Excelsior Printing Co.**  
Chicago, Ill.

**Galloway Lithographing Co.**  
San Francisco, Calif.  
(See Adv. on Page 165)

**Genesee Valley Lithograph Co.**  
Rochester, N. Y.

**Horticultural Press, Inc., The**  
Chicago, Ill.  
(See Adv. on Page 172)



# SEALS and SELLS

A Tamper Proof Seal which displays your trademark or brand name in colors. May be attached to the bag with cord, wire or ribbon. Write for Samples and Complete Information.

**PROTECTO SEAL CO., INC.**  
1337 MAIN STREET  
BUFFALO, NEW YORK

Every bag of seed sold on a quality basis should be

**PROTECTED from ADULTERATION or SUBSTITUTION with**

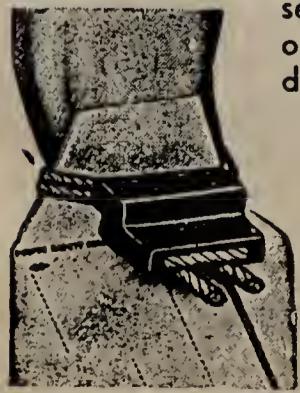
**THE PORTER SAFETY SEAL**

**The Seal That Seals**

The sealing implement imprints your name and address on the lead-and-cord seal and is equipped with a cord tightening device which pulls the cords so tight around the neck of the bag that the seal cannot be removed or manipulated without destroying the seal.

Sample sealed bag and full information sent on request.

**PORTER SAFETY SEAL COMPANY**  
269 N. California Ave.  
Chicago



# SEED PACKETS

FOR THE MOST COMPLETE LINE OF  
**FLOWER & VEGETABLE PACKETS**  
SEE THE  
**GALLOWAY LINE**

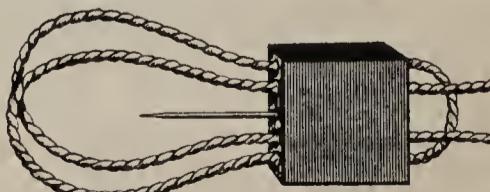
**SCHMIDT LITHOGRAPH CO.**  
GALLOWAY LITHO. CO.  
DIVISION  
**SAN FRANCISCO - CAL.**



**GRIP-LOCK**  
*the foolproof*  
SELF-LOCKING  
BAG SEAL

The GRIP-LOCK is the very latest development in Bag Seals and is ideal for seedsmen's use. It prevents substitution and adulteration. After being once locked, relocking is impossible. It is also simple and easy to use as no machine is needed.

The lead pin bag seal SHOWN BELOW is another of the many types we manufacture for sealing seed bags.



*Write for Sample and Complete Information*

**E. J. BROOKS CO.**  
164 North 13th St. Newark, N. J.

## SEEDSMEN'S SUPPLIES—Continued

**Catalog Colored Covers—Continued**

McFarland Co., J. Horace  
Harrisburg, Pa.

Morse Co., A. B.  
St. Joseph, Mich.

Pitts Studios, Inc.

Rochester, N. Y.

**Stecher-Traung Lithograph Corp.**  
**Rochester, N. Y.**  
(See Adv. on Page 173)

Wallace-Homestead Co.  
Des Moines, Iowa

**CATALOG ILLUSTRATIONS**

McFarland Co., J. Horace  
Harrisburg, Pa.

Pitts Studios, Inc.  
Rochester, N. Y.

**CATALOG PRINTERS**

American Colortype Co.  
Chicago, Ill.

**Benton Review Shop (Stock Seed Catalogs)**  
**Fowler, Ind.**

Byrd Press, Inc., The Wm.  
Richmond, Va.

DeLaMare Co., Inc., A. T.  
New York, N. Y.

Du Bois Press

Rochester, N. Y.

Excelsior Printing Co.  
Chicago, Ill.

Hall Printing Co., W. F.  
Chicago, Ill.

**Horticultural Press, Inc., The**  
**Chicago, Ill.**  
(See Adv. on Page 172)

McFarland Co., J. Horace  
Harrisburg, Pa.

Morse Co., A. B.  
St. Joseph, Mich.

Process Color Printing Co.  
Rochester, N. Y.

Wallace-Homestead Co.  
Des Moines, Iowa

**CLEANING MACHINERY**

Carter-Mayhew Mfg. Co.  
Minneapolis, Minn.

Cleland Mfg. Co.  
Minneapolis, Minn.

Eddy Seed Cleaners, Ltd.  
Toronto, Ont., Can.

Ferrell & Co., A. T.  
Saginaw, Mich.

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
(See Adv. on Page 167)

Huntley Mfg. Co.  
Brocton, N. Y.

**Oliver Mfg. Co.**  
St. Louis, Mo.  
(See Adv. on Page 55)

Owens Co., J. L.  
Minneapolis, Minn.

Rice, W. A.  
Jerseyville, Ill.

Sidney Grain Machinery Co.  
Sidney, Ohio

Sprout, Waldron & Co.  
Muncy, Pa.

**Sutton, Steele & Steele, Inc.**  
**Dallas, Texas**  
(See Adv. on Page 21)

**COLOR REPRODUCTIONS FOR  
SEEDSMEN AND NURSERYMEN**

Dubois Press  
Rochester, N. Y.

**Horticultural Press, Inc., The**  
**Chicago, Ill.**  
(See Adv. on Page 172)

McFarland Co., J. Horace  
Harrisburg, Pa.

Morse Co., A. B.  
St. Joseph, Mich.

Pitts Studios, Inc.  
Rochester, N. Y.

**COMMERCIAL SEED TESTING**

Commercial Seed Laboratory  
Washington, D. C., and Toledo, O.

**INTERNATIONAL SEED SERVICE, INC.**

**NEW YORK, N. Y.**

(See Adv. on Page 59)

National Seed Laboratory  
Toledo, Ohio

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Anderson, Wm. E.  
Chicago, Ill.  
Ely & Pattison  
New York, N. Y.

**CORN CRACKERS**

**Sedberry, Inc., J. B.**  
Utica, N. Y.

(See Adv. on Page 167)

**CORN GRADERS**

Baier Bros. Mfg. Co.  
Cissna Park, Ill.

Cleland Mfg. Co.  
Minneapolis, Minn.

Ferrell & Co., A. T.  
Saginaw, Mich.

**Howes Co., Inc., S.**

**Silver Creek, N. Y.**

(See Adv. on Page 167)

Hunnicutt Co., Chas.  
Wilmington, Ohio

Huntley Mfg. Co.  
Brocton, N. Y.

Owens Co., J. L.

Minneapolis, Minn.

Richards & Sons, Ross V.  
North Manchester, Ind.

Savage Co., W. J.

Knoxville, Tenn.

**Sutton, Steele & Steele**

**Dallas, Texas**

(See Adv. on Page 21)

**Universal Hoist & Mfg. Co.**

**Cedar Falls, Iowa**

(See Adv. on Page 167)

**CORN SHELLERS**

Duplex Mill & Mfg. Co., The  
Springfield, Ohio

Gruendler Crusher & Pulv. Co.  
St. Louis, Mo.

**Howes Co., Inc., S.**

**Silver Creek, N. Y.**

(See Adv. on Page 167)

Union Iron Works

Decatur, Ill.

**CORN SORTERS**

**Howes Co., Inc., S.**

**Silver Creek, N. Y.**

(See Adv. on Page 167)

**Universal Hoist & Mfg. Co.**

**Cedar Falls, Iowa**

(See Adv. on Page 167)

**CRACKED CORN CLEANERS AND  
GRADERS**

Duplex Mill & Mfg. Co., The

Springfield, Ohio

Gruendler Crusher & Pulv. Co.

St. Louis, Mo.

**Howes Co., Inc., S.**

**Silver Creek, N. Y.**

(See Adv. on Page 167)

Huntley Mfg. Co.

Brocton, N. Y.

Savage Co., W. J.

Knoxville, Tenn.

**Sutton, Steele & Steele, Inc.**

**Dallas, Texas**

(See Adv. on Page 21)

**Universal Hoist & Mfg. Co.**

**Cedar Falls, Iowa**

(See Adv. on Page 167)

**CRUSHERS**

Gruendler Crusher & Pulv. Co.

St. Louis, Mo.

**Sedberry, Inc., J. B.**

**Utica, N. Y.**

(See Adv. on Page 167)

Straub Co., The A. W.

Philadelphia, Pa.

Williams Patent Crusher & Pulv. Co.

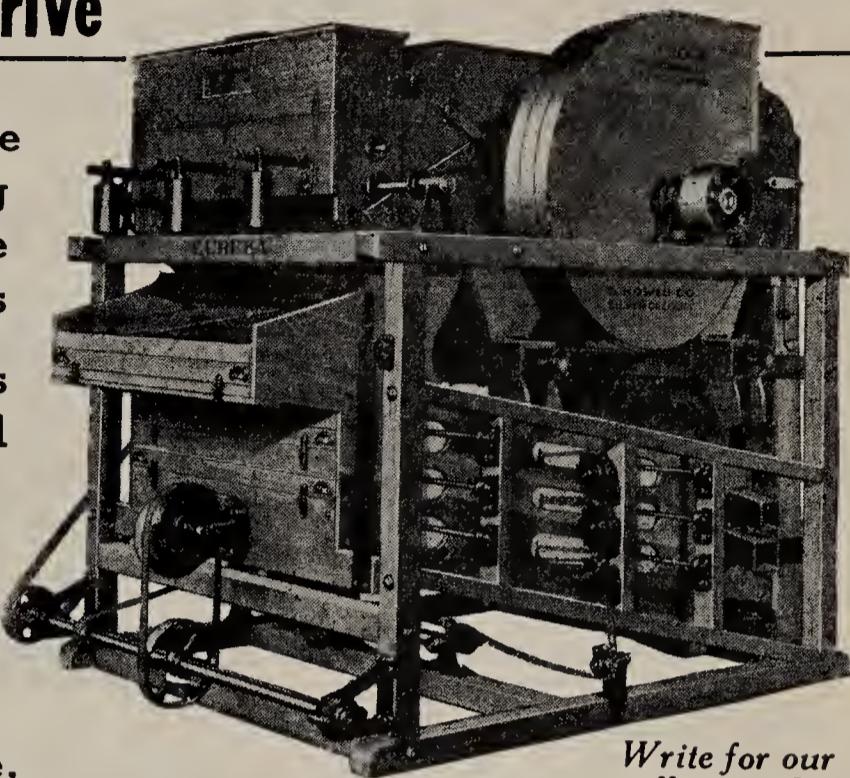
St. Louis, Mo.

# EUREKA Standardized SEED CLEANER with Eureka Buhler Drive

A modern, efficient machine for doing thorough cleaning and making better, more accurate seed separations

- excellent air separations under perfect control
- closer, more uniform screen separations

Smooth, quiet, steady in operation — vibrationless, eccentric-less Buhler Drive, ball bearings, automatic brush sieve cleaners.



*Write for our illustrated Bulletin No. 130*



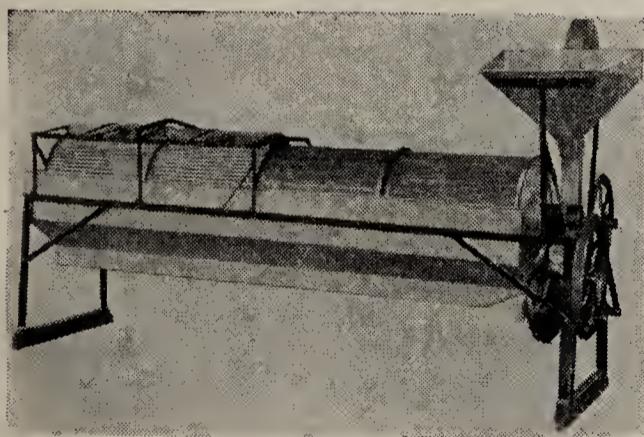
## S. HOWES COMPANY, Inc.

Silver Creek



New York

## THE MORECORN SEED CORN GRADER



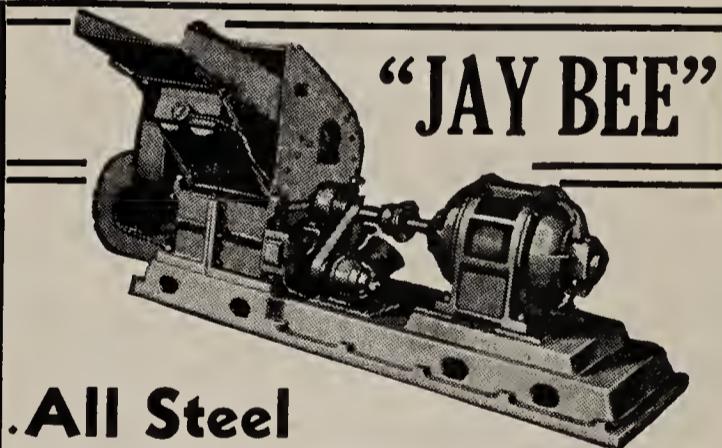
Most efficient and accurate Grader for all varieties of Field Corn, Sweet Corn, Pop Corn as well as beans and other similar grains. Illustration above shows style No. 3, capacity 30 to 40 bushels per hour equipped with electric motor drive. Air Fan Cleaning attachment furnished if desired.

Also made in two smaller sizes with capacity of 6 or 12 Bu. per hour.

Morecorn Graders have been made and sold for the past 25 years, fully guaranteed subject to 10 days trial. Write for detailed information and prices.

**Universal Hoist & Mfg. Co.**

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## All Steel Hammer Mill

*Here's a Real Business-Builder and Money-Maker*

The extra profits—the increased good will through a job done well—that's what "JAY BEE" grinding brings you. Whatever your present or anticipated grinding requirements are, we have a size and type grinder to meet your exact needs. Belt and direct-connected drives.

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All steel construction makes "JAY BEE" practically indestructible. Grinds everything grindable, without friction or heat—cool and uniform. Over 18,000 Bossert-made "JAY BEE" mills all over the world, setting the **Standard for Capacity, Economy and Durability**.

*Write for detailed description, prices, terms, etc.*

**J. B. SEDBERRY, INC.**

167 Hickory St., Utica, N. Y.

## SEEDSMEN'S SUPPLIES—Continued

## DUST COLLECTORS

Day Co., The  
Minneapolis, Minn.  
Gruendler Crusher & Pulv. Co.  
St. Louis, Mo.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)

Huntley Mfg. Co.  
Brocton, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.  
(See Adv. on Page 55)

## DUST PROTECTORS

Garnett, Herbert (Respirators)  
Maumee, Ohio  
Seed Trade Reporting Bureau  
Chicago, Ill.

## ELEVATORS—AIRLIFT

Oliver Mfg. Co.  
St. Louis, Mo.  
(See Adv. on Page 55)

## ENVELOPES

Berkowitz Envelope Co.  
Kansas City, Mo.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
(See Adv. on Page 163)  
Cupples-Hesse Env. & Litho. Co.  
St. Louis, Mo.  
Disbrow Mfg. Co.  
Newark, N. J.  
(See Adv. on Page 174)  
Gaw-O'Hara Envelope Co.  
Chicago, Ill.  
Heco Envelope Co.  
Chicago, Ill.  
(See Adv. on Page 169)  
Heinrich, Inc., John A.  
Minneapolis, Minn.  
Letalog Mailer Co.  
Chicago, Ill.  
Miller, Tompkins & Co.  
East Rutherford, N. J.  
(See Adv. on Page 169)  
Weaver Mailing Envelope & Box Co.  
Philadelphia, Pa.

## FEED GRINDERS

Anglo-American Mill Co.  
Owensboro, Ky.  
Duplex Mill & Mfg. Co., The  
Springfield, Ohio  
Fairbanks, Morse & Co.  
Chicago, Ill.  
Gruendler Crusher & Pulv. Co.  
St. Louis, Mo.  
Savage Co., W. J.  
Knoxville, Tenn.  
Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)  
Williams Patent Crusher & Pulv. Co.  
St. Louis, Mo.

## FEED PACKAGING MACHINERY

Ferguson Co., J. L.  
Joliet, Ill.  
Frazier & Son  
Belleville, N. J.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)  
Huntley Mfg. Co.  
Brocton, N. Y.  
Richardson Scale Co.  
Clifton, N. J.

## FENCING

Buffalo Wire Works Co., Inc.  
Buffalo, N. Y.  
Michigan Wire Goods Co.  
Niles, Mich.  
(See Adv. on Page 139)

## GERMINATORS

Herbst Bros.  
New York, N. Y.  
(See Adv. on Page 131 & 73)

## Seed Trade Reporting Bureau

Chicago, Ill.  
(See Adv. on Page 87)  
Specialty Mfg. Co.  
St. Paul, Minn.  
Standard Scientific Supply Corp.  
New York City, N. Y.

## GRAIN MILLS

Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)

## GRAIN AND SEED CLEANERS

Carter-Mayhew Mfg. Co.  
Minneapolis, Minn.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)

Huntley Mfg. Co.  
Brocton, N. Y.

Oliver Mfg. Co.  
St. Louis, Mo.  
(See Adv. on Page 55)

Sutton, Steele & Steele  
Dallas, Texas  
(See Adv. on Page 21)

Technical Sales Co.  
New York, N. Y.

## GREENHOUSES

Callahan Co., T. J.  
Dayton, Ohio  
Foley Greenhouse Mfg. Co.  
Forest Park, Ill.  
Lord & Burnham Co.  
Irvington, N. Y.  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Yoho & Hooker  
Youngstown, Ohio

## HAMMER MILLS

Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)

## HULLERS

Allis Chalmers Mfg. Co.  
Milwaukee, Wis.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)

## IRRIGATION SYSTEMS

Dayton Irrigation Co.  
Dayton, Ohio  
March Automatic Irrigation Co.  
Muskegon, Mich.  
White Showers, Inc.  
Detroit, Mich.  
X. L. Mfg. Co.  
Chicago, Ill.  
(See Adv. on Page 139)

## LABORATORY EQUIPMENT

Heller & Co., W. C.  
Montpelier, Ohio  
Howes Co., Inc., S. (Model Cleaners, Etc.)  
Silver Creek, N. Y.  
(See Adv. on Page 167)

## Seed Trade Reporting Bureau

Chicago, Ill.  
(See Adv. on Page 87)

Specialty Mfg. Co.  
St. Paul, Minn.  
Standard Scientific Supply Corp.  
New York City, N. Y.  
Torsion Balance Co.  
New York City, N. Y.

## LEGAL AID

Anderson, Wm. E.  
Chicago, Ill.  
Bebb, Herbert  
Chicago, Ill.  
Ely & Pattison  
New York, N. Y.  
Smith, Curtis Nye  
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BAGS**

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East Rutherford,  
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**SEEDSMEN'S SUPPLIES—Continued****MIXERS—MOLASSES**

**Sedberry, Inc., J. B.**  
**Utica, N. Y.**  
 (See Adv. on Page 167)

**MIXERS—SEED OR FEED**

**Gruendler Crusher & Pulv. Co.**  
**St. Louis, Mo.**

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
 (See Adv. on Page 167)

**Huntley Mfg. Co.**  
**Brocton, N. Y.**

**Oliver Mfg. Co.**  
**St. Louis, Mo.**  
 (See Adv. on Page 55)

**Sedberry, Inc., J. B.**  
**Utica, N. Y.**  
 (See Adv. on Page 167)

**Sprout, Waldron & Co.**  
**Muncy, Pa.**

**Williams Patent Crusher & Pulv. Co.**  
**St. Louis, Mo.**

**OAT CRUSHERS**

**Sedberry, Inc., J. B.**  
**Utica, N. Y.**  
 (See Adv. on Page 167)

**PACKET FILLING**

**Brown Bag Filling Machine Co.**  
**Fitchburg, Mass.**  
 (See Adv. on Page 163)

**Ferguson Co., J. L.**  
**Joliet, Ill.**

**Frazier & Son**  
**Belleville, N. J.**  
**Lehman Co., Inc., J. M.**  
**New York, N. Y.**

**Wright-Dalton Machine Co.**  
**Durham, N. C.**

**PACKET FILLING MACHINES**

**Automatic Packaging Machinery Co.**  
**Nashua, N. H.**

**Brown Bag Filling Machine Co.**  
**Fitchburg, Mass.**  
 (See Adv. on Page 163)

**Consolidated Packaging Machinery Corp.**  
**Buffalo, N. Y.**

**Ferguson Co., J. L.**  
**Joliet, Ill.**

**Frazier & Son**  
**Belleville, N. J.**  
**Lehmann Co., Inc., J. M.**  
**New York, N. Y.**

**Packaging Machinery Co.**  
**Yonkers, N. Y.**

**Stokes & Smith Co., The**  
**Philadelphia, Pa.**

**Wright-Dalton Machine Co.**  
**Durham, N. C.**

**PASTES—GLUES—GUMS**

**Findley Co., F. G.**  
**Milwaukee, Wis.**

**PATENT ATTORNEY**

**Anderson, Wm. E.**  
**Chicago, Ill.**  
**Ely & Pattison**  
**New York, N. Y.**

**Scheible, Albert**  
**Chicago, Ill.**

**PAPER FOR CATALOGS**

**Consolidated Water Power & Paper Co.**  
**Wisconsin Rapids, Wis.**  
 (See Adv. on Page 171)

**International Paper Co.**  
**New York, N. Y.**

**Kimberly-Clark Co.**  
**Chicago, Ill.**  
**Marquette Paper Co.**  
**Chicago, Ill.**

**PAPER—MULCH**

**International Paper Co.**  
**New York, N. Y.**

**PAPER—WRAPPING**

**Disbrow Mfg. Co.**  
**Newark, N. J.**  
 (See Adv. on Page 174)  
**International Paper Co.**  
**New York, N. Y.**  
**Safepack Mills**  
**Millis, Mass.**

**PATTERN GARDENS**

**International Paper Co.**  
**New York, N. Y.**

**POSTERS**

**Galloway Lithographing Co., Inc.**  
**San Francisco, Calif.**  
 (See Adv. on Page 165)

**Genesee Valley Lithograph Co.**  
**Rochester, N. Y.**

**Horticultural Press**  
**Chicago, Ill.**  
 (See Adv. on Page 172)

**Morse Co., A. B.**  
**St. Joseph, Mich.**  
**Stecher-Traung Lithograph Corp.**  
**Rochester, N. Y.**  
 (See Adv. on Page 173)

**PORTABLE MILLS**

**Sedberry, Inc., J. B.**  
**Utica, N. Y.**  
 (See Adv. on Page 167)

**POULTRY FEED MACHINERY**

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
 (See Adv. on Page 167)

**Huntley Mfg. Co.**  
**Brocton, N. Y.**

**Sedberry, Inc., J. B.**  
**Utica, N. Y.**  
 (See Adv. on Page 167)

**Williams Patent Crusher & Pulv. Co.**  
**St. Louis, Mo.**

**SAMPLE CASES**

**Hamilton Mfg. Co.**  
**Two Rivers, Wis.**  
**Heller & Co., W. C.**  
**Montpelier, Ohio**  
**Knickerbocker Case Co.**  
**Chicago, Ill.**

**SAMPLE PANS**

**Seed Trade Reporting Bureau**  
**Chicago, Ill.**  
 (See Adv. on Page 149)

**SAWDUST FOR CLEANING**

**Miller & Son, Frank**  
**Chicago, Ill.**

**SCALES—AUTOMATIC**

**Exact Weight Scale Co., The**  
**Columbus, Ohio**  
 (See Adv. on Page 171)

**Fairbanks, Morse & Co.**  
**Chicago, Ill.**  
**Ferguson Co., J. L.**  
**Joliet, Ill.**

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
 (See Adv. on Page 167)

**Richardson Scale Co.**  
**Clifton, N. J.**  
**Stokes & Smith Co., The**  
**Philadelphia, Pa.**

**Toledo Scale Co.**  
**Toledo, Ohio**  
**Triner Sales Co.**  
**Chicago, Ill.**

**SCALES—COUNTER or PLATFORM**

**Exact Weight Scale Co., The**  
**Columbus, Ohio**  
 (See Adv. on Page 171)

**Fairbanks, Morse & Co.**  
**Chicago, Ill.**

**Get More Packages from  
Bulk Weight by using  
EXACT WEIGHT  
SCALES**

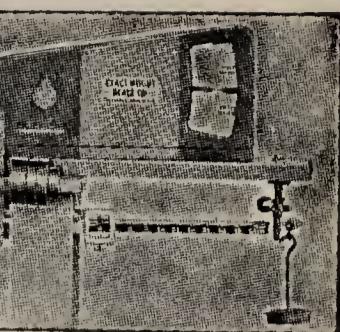
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Overweight Head  
for attachment to  
your present  
platform scale.

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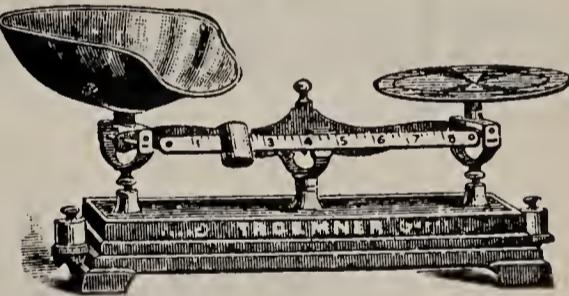


Fig. 39. AGATE SEED SCALE

**Henry Troemner**  
*Manufacturer*

Fine Balances, Scales,  
Weights for Testing  
and Grading of Seed,  
Grain, etc.

*Many Types for Many Uses*

EST. 1840

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911 ARCH ST. PHILA., PA.

## SEEDSMEN'S SUPPLIES—Continued

**Scales—Counter or Platform—Continued****Howes Co., Inc., S.****Silver Creek, N. Y.**

(See Adv. on Page 167)

**Seed Trade Reporting Bureau****Chicago, Ill.**

(See Adv. on Page 151)

**Toledo Scale Co.****Toledo, Ohio****Torsion Balance Co.****New York City****Triner Sales Co.****Chicago, Ill.****Troemner Co., Henry****Philadelphia, Pa.**

(See Adv. on Page 171)

**SCALES—LABORATORY****Seed Trade Reporting Bureau****Chicago, Ill.**

(See Adv. on Page 151)

**Standard Scientific Supply Corp.****New York City, N. Y.****Torsion Balance Co.****New York City, N. Y.****Troemner Co., Henry****Philadelphia, Pa.**

(See Adv. on Page 171)

**SCALPING SHOES****Oliver Mfg. Co.****St. Louis, Mo.**

(See Adv. on Page 55)

**SCARIFIERS****Allis-Chalmers Mfg. Co.****Milwaukee, Wis.****Cleland Mfg. Co.****Minneapolis, Minn.****Ferrell & Co., A. T.****Saginaw, Mich.****Howes Co., Inc., S.****Silver Creek, N. Y.**

(See Adv. on Page 167)

**Savage Co., W. J.****Knoxville, Tenn.****SCREENS****Cleland Mfg. Co. (Sieves)****Minneapolis, Minn.****Erdle Perforating Co.****Rochester, N. Y.****Ferrell & Co., A. T.****Saginaw, Mich.****Howes Co., Inc., S.****Silver Creek, N. Y.**

(See Adv. on Page 167)

**Huntley Mfg. Co.****Brockton, N. Y.****Seed Trade Reporting Bureau****Chicago, Ill.**

(See Adv. on Page 147)

**Sutton, Steele & Steele, Inc.****Dallas, Texas**

(See Adv. on Page 21)

**SEALS****Bates Valve Bag Corp.****New York, N. Y.****Brooks Co., E. J.****Newark, N. J.**

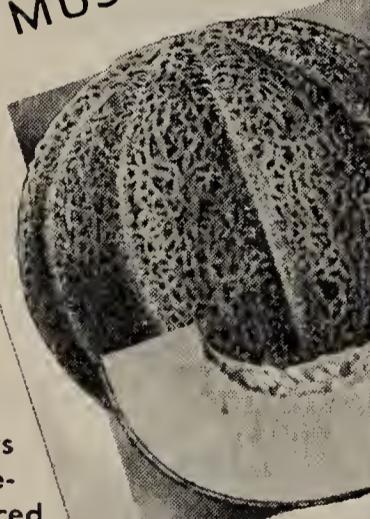
(See Adv. on Page 165)

**Porter Safety Seal Co.****Chicago, Ill.**

(See Adv. on Page 165)

**Protecto-Seal Co.****Buffalo, N. Y.**

(See Adv. on Page 165)

**SEED CASES****Heller & Co., W. C.****Montpelier, Ohio****Walkerbilt****Penn Yan, N. Y.****THE NEW IMPROVED SEED PACKETS****TRUE TO  
TYPE****MUSKMELON**

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**SEED CORN TESTERS**

Baier Bros. Mfg. Co.  
Cissna Park, Ill.  
**Seed Trade Reporting Bureau**  
Chicago, Ill.  
(See Adv. on Page 87)

Specialty Mfg. Co.  
St. Paul, Minn.

**SEED DRIERS**

Ellis Drier Works  
Chicago, Ill.  
**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
(See Adv. on Page 167)

Randolph Co., O. W.  
Toledo, Ohio  
Richards & Sons, Ross V.  
North Manchester, Ind.

**SEED ENVELOPE SEALERS**

**Arnold, Schuyler**  
**Coldwater, N. Y.**  
(See Adv. on Page 163)

**Stokes & Smith Co., The**  
Philadelphia, Pa.  
**Wright-Dalton Machine Co.**  
Durham, N. C.

**SEED EXTRACTORS—SPIRAL  
ROUND**

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
(See Adv. on Page 167)

**SEED PACKETS**

Berkowitz Envelope Co.  
Kansas City, Mo.  
**Brown Bag Filling Machine Co.**  
Fitchburg, Mass.  
(See Adv. on Page 163)

**Disbrow Mfg. Co.**  
Newark, N. J.  
(See Adv. on Page 174)

**Galloway Lithographing Co.**  
San Francisco, Calif.  
(See Adv. on Page 165)

Genesee Valley Lithograph Co.  
Rochester, N. Y.  
Heinrich, Inc., John A.  
Minneapolis, Minn.

**Horticultural Press, Inc., The**  
Chicago, Ill.  
(See Adv. on Page 172)

**Stecher-Traung Lithograph Corp.**  
Rochester, N. Y.  
(See Adv. on Page 173)

**SEED PACKET DISPLAY RACKS**

**Davis Metal Fixture Co.**  
Lansing, Mich.  
(See Adv. on Page 175)

Everitt's Convertible Display Case Co.  
Decatur, Ga.  
**Hamilton Mfg. Co.**  
Two Rivers, Wis.

Heller & Co., W. C.  
Montpelier, Ohio  
**Horticultural Press, Inc., The**  
Chicago, Ill.  
(See Adv. on Page 172)

Manitowoc Building Supply Co.  
Manitowoc, Wis.  
**Walkerbilt**  
Penn Yan, N. Y.

Webster Co., Mel. L.  
Independence, Iowa

**SEED POLISHERS**

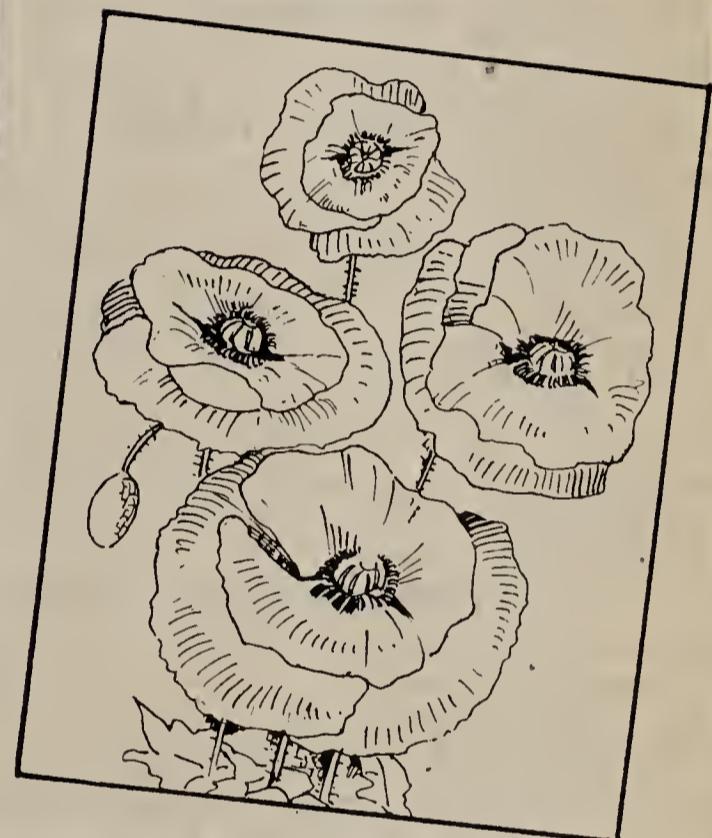
Goodner Pump & Mfg. Co.  
Rocky Ford, Colo.

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
(See Adv. on Page 167)

**SEED SAMPLE ENVELOPES**

**Bemis Bro. Bag Co.**  
St. Louis, Mo.  
(See Adv. on Page 1)

Berkowitz Envelope Co.  
Kansas City, Mo.  
Cupples-Hesse Env. & Litho. Co.  
St. Louis, Mo.



*True type in  
all varieties  
of vegetable  
and flower  
packets*

**STECHER-TRAUNG**  
LITHOGRAPH CORP.  
ROCHESTER NEW YORK

**SEEDSMEN'S SUPPLIES—Concluded****SEED SAMPLE ENVELOPES—Continued**

**Disbrow Mfg. Co.**  
Newark, N. J.  
(See Adv. on Page 174)

**Heco Envelope Co.**  
Chicago, Ill.  
(See Adv. on Page 169)

**Heinrich, Inc., John A.**  
Minneapolis, Minn.

**Miller, Tompkins & Co.**  
East Rutherford, N. J.  
(See Adv. on Page 169)

**Stecher-Traung Lithograph Corp.**  
Rochester, N. Y.  
(See Adv. on Page 173)

**Tension Envelope Co., Inc.**  
Brooklyn, N. Y.  
Weaver Mailing Envelope & Box Co.  
Philadelphia, Pa.

**Western Envelope Co.**  
Kansas City, Mo.

**SEED THRESHERS**

Allis-Chalmers Mfg. Co.  
Milwaukee, Wis.

Caledonia Bean Harvester Works  
Caledonia, N. Y.

Case Co., J. I.  
Racine, Wis.

Goodner Pump & Mfg. Co.  
Rocky Ford, Colo.

Gray's Sons, Inc., A. W.  
Poultney, Vt.

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
(See Adv. on Page 167)

International Harvester Co.  
Chicago, Ill.

Koger Pea & Bean Thresher Co.  
Morristown, Tenn.

Owens Co., J. L.  
Minneapolis, Minn.

**SHIPPING TAGS**

**Campbell Box & Tag Co.**  
South Bend, Ind.  
(See Adv. on Page 175)

Cupples-Hesse Env. & Litho. Co.  
St. Louis, Mo.

Dennison Mfg. Co.  
Framington, Mass.

**Disbrow Mfg. Co.**  
Newark, N. J.  
(See Adv. on Page 174)

**SIEVE DRIVES**

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
(See Adv. on Page 167)

**STORE FIXTURES**

**Davis Metal Fixture Co.**  
Lansing, Mich.  
(See Adv. on Page 175)

**Heller & Co., W. C.**  
Montpelier, Ohio

Manitowoc Building Supply Co.  
Manitowoc, Wis.

National Cash Register Co.  
Dayton, Ohio

Walkerbilt

Penn Yan, N. Y.

**TRADE MARK REGISTRATIONS**

Anderson, Wm. E.  
Chicago, Ill.

Ely & Pattison  
New York, N. Y.

Scheible, Albert  
Chicago, Ill.

**TRUCKS—WAREHOUSE**

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Columbus, Ohio

Steubing Truck Co.  
Cincinnati, Ohio

**WRAPPING MACHINES—AUTOMATIC**

American Machinery & Foundry Co.  
Brooklyn, N. Y.

Ferguson Co., J. L.  
Joliet, Ill.

Lehmann Co., Inc., J. M.  
New York, N. Y.

**WRAPPING PAPER**

**Disbrow Mfg. Co.**  
Newark, N. J.  
(See Adv. on Page 174)

# DISBROW SEE D BAGS

**SIFT PROOF SEED PACKETS**

**SATCHEL BOTTOM BAGS**

*Direct to SEEDSMEN*

Kraft Satchel Bottom Bags, Disbrow Siftproof Seal Brand Packets, Embossed Bags, Glassine Miniatures, Celery Bleachers, Metal Fold Mailing Envelopes, Catalogue and Commercial Envelopes, Folding Paper Boxes and Corrugated Boxes. Demand the best. Attractive printing—low prices.

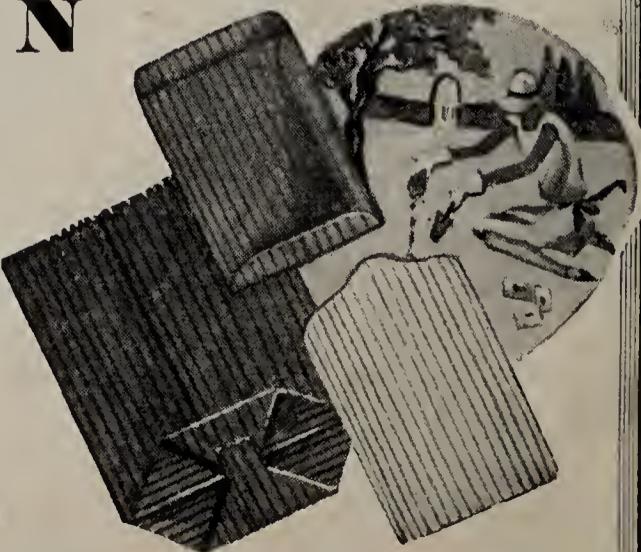
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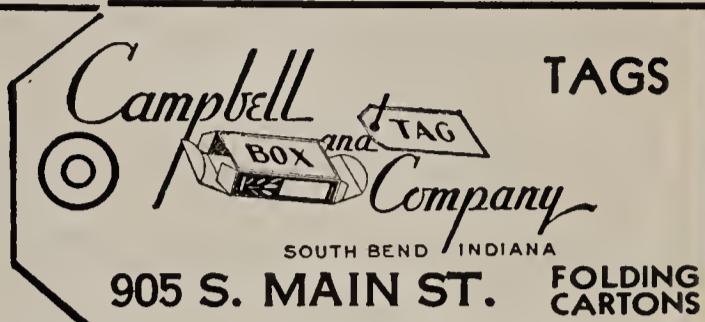


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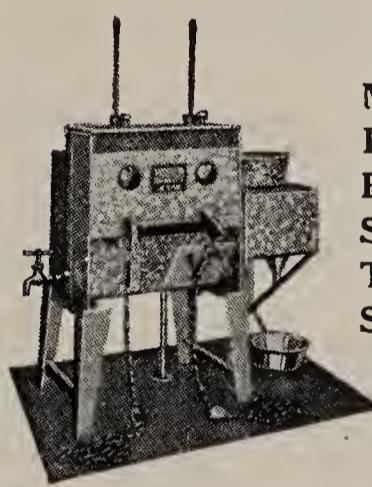
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## EDITORIAL INDEX OF SEED WORLD—1934

For our readers' convenient reference a topical index of the most important articles published in *Seed World* from January to November, inclusive, during 1934, is given below. Copies of any particular issue (while the supply is available) may be procured by addressing a request to *Seed World*, Editorial Department, 325 W. Huron St., Chicago, Ill.—Price 15 cents per copy.—Ed.

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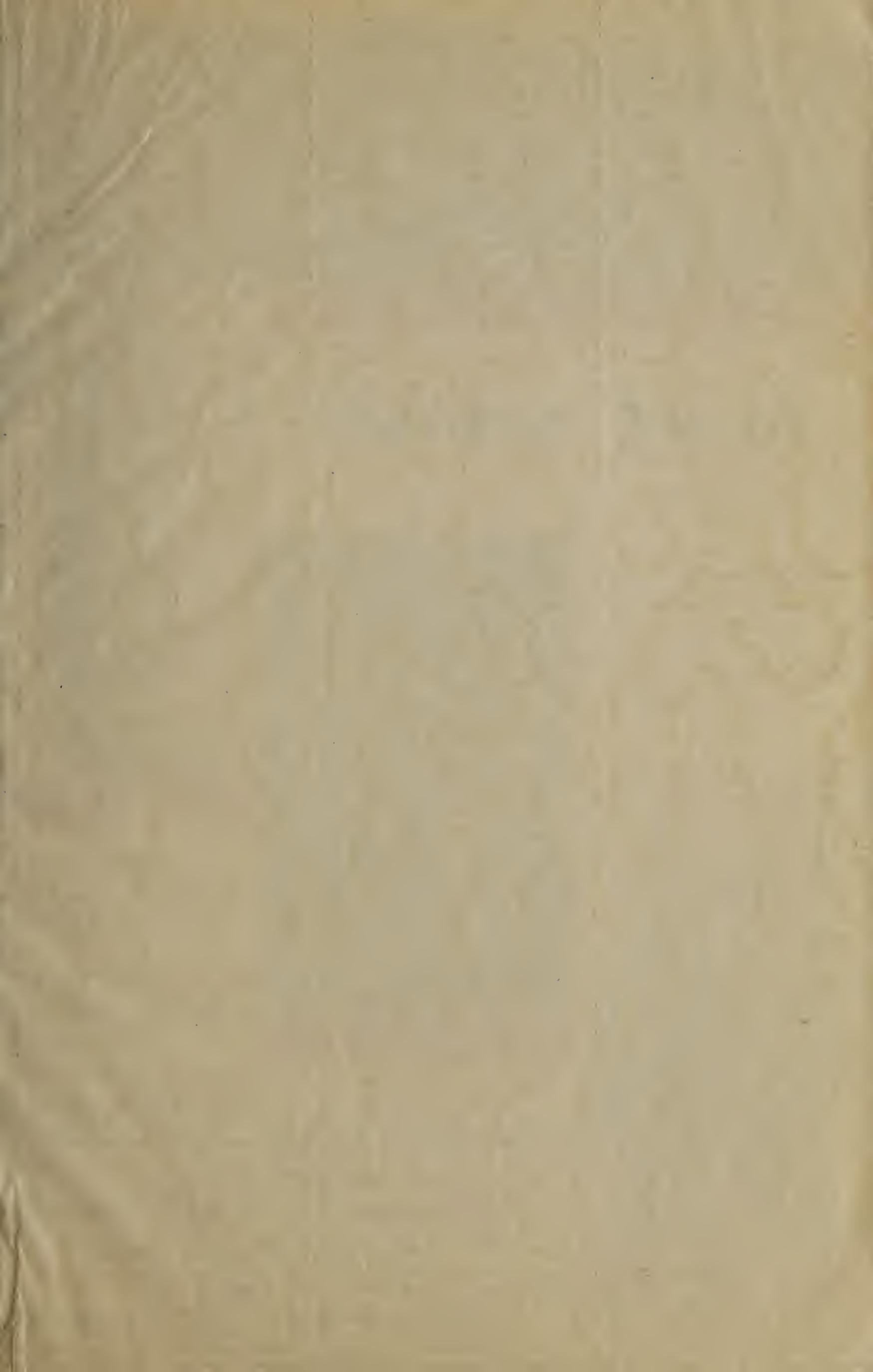
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